DOCUMENT RESUME

ED 131 873 JC 760 633

AUTHOR	Silberman, Harry F., Ed.; Ginsburg, Mark B., Ed.
TITLE	Easing the Transition from Schooling to Work. New Directions for Community Colleges, Number 16.
INSTITUTION	California Univ., Los Angeles. ERIC Clearinghouse for Junior Coll. Information.
SPONS AGENCY	National Inst. of Education (DHEW), Washington, D.C.
PUB DATE	76
NOTE	125p.
AVAILABLE FROM	Jossey-Bass, Inc., Publishers, 615 Montgomery Street, San Francisco, California 94111 ($5.00)
JOURNAL CIT	New Directions for Community Colleges; v4 n4 Winter 1976
EDRS PRICE	MF-$0.83 HC-$6.01 Plus Postage.
DESCRIPTORS	Career Education; College Students; Community Colleges; Educational Trends; Employment; Foreign Countries; *Junior Colleges; *Post Secondary Education; Student Characteristics; *Student Problems; *Vocational Adjustment; Work Attitudes; *Work Experience Programs

ABSTRACT

The transition from schooling to work has been recognized as a difficult one. As society has become more modernized, the problem of transition has become even more aggravated. American postsecondary education has a role to play in making this transition less difficult, and in integrating the educational process into the world of work. This sourcebook focuses on the problems associated with transition and suggests some possible facilitating steps that educational institutions, particularly community colleges, might take. The articles presented deal with the issues associated with school-to-work transition: alienation of young people, the need for affective career education, work experiences for youth, cooperative education, placement services and career development, international examples of school-to-work transition, and factors influencing the growth and decline of higher education. A review of additional pertinent literature and a bibliography are provided. Contributors include: Harry F. Silberman, Edward Wynne, Evan R. Keislar, Robert Heeker, Jane S. Permaul, Mark B. Ginsburg, James C. Taylor, Charles C. Healy, Paul E. Barton, David O'Shea, John N. Hawkins, Thomas J. LaBelle, Brooks Carder, Janet Lieberman, Marcia Freedman, Robert S. Bolan, Stephen J. Carroll, Peter A. Morrison, and Lewis C. Solmon. (JDS)

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new directions for community colleges

a quarterly sourcebook edited by
Arthur M. Cohen and Florence B. Brawer
and sponsored by the ERIC Clearinghouse for Junior Colleges

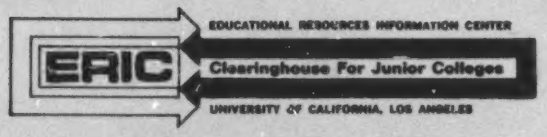
JC 760 633

number 16
winter 1976

easing the transition from schooling to work

harry f. silberman
mark b. ginsburg
issue editors

Jossey-Bass Inc., Publishers
San Francisco • Washington • London



EASING THE TRANSITION FROM SCHOOLING TO WORK
New Directions for Community Colleges
Volume IV, Number 4, Winter 1976
Harry F. Silberman, Mark B. Ginsburg, Issue Editors

New Directions for Community Colleges is published quarterly by Jossey-Bass, Inc., Publishers, in association with the ERIC Clearinghouse for Junior Colleges. Subscriptions are available at the regular rate for institutions, libraries, and agencies of $25 for one year. Individuals may subscribe at the special professional rate of $15 for one year. *New Directions* is numbered sequentially—please order extra copies by sequential number. The volume and issue numbers above are included for the convenience of libraries. Application to mail at second-class postage rates is pending at San Francisco, California, and at additional mailing offices.

The material in this publication was prepared pursuant to a contract with the National Institute of Education, U.S. Department of Health, Education and Welfare. Contractors undertaking such projects under government sponsorship are encouraged to express freely their judgment in professional and technical matters. Prior to publication, the manuscript was submitted to the UCLA Laboratory for Research on Higher Education for critical review and determination of professional competence. This publication has met such standards. Points of view or opinions, however, do not necessarily represent the official view or opinions of the UCLA Laboratory for Research on Higher Education or the National Institute of Education.

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Subscriptions, single-issue orders, change of address notices, undelivered copies, and other correspondence should be sent to *New Directions* Subscriptions, Jossey-Bass, Inc., Publishers, 615 Montgomery Street, San Francisco, California 94111. Editorial correspondence should be sent to the Editor-in-Chief, Arthur M. Cohen, at the ERIC Clearinghouse for Junior Colleges, University of California, Los Angeles, California 90024.

Library of Congress Catalogue Card Number 76-591

Cover design by Willi Baum
Manufactured in the United States of America

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editors' notes

This volume represents the culmination of the work begun in July 1975 at the University of California at Los Angeles with a small conference sponsored by the Spencer Foundation on the problem of school-to-work transition. We were fortunate in having experts not only from UCLA but elsewhere address this problem and, in particular, the role of community colleges in producing and resolving it.

It will be evident in reading the following articles that the assumptions of the authors vary considerably about the problem and its solution. But we have grouped these articles in an order that proceeds from descriptions of the problem itself to alternative proposals for solutions and finally to specific concerns about the implementation of these solutions in existing institutions. We hope this sequence of analysis—from the nature of the problem to techniques for its resolution, from the description of today's reality to prescriptions of tomorrow's possibilities--will stimulate further attention and action on the transition from classroom to workplace; and we are indebted to the Spencer Foundation and our authors for their contribution to this goal.

Harry F. Silberman
Mark B. Ginsburg
Issue Editors

Four dimensions can be used for classifying the issues involved in moving from youth to adulthood and from school to work.

a taxonomy of the issues on the school-to-work transition

harry f. silberman

Every day the mass media broadcast the symptoms of a society in which young people are having difficulty in moving from school to work and from youth to adulthood. Such symptoms as high rates of alcoholism and campus vandalism have been documented in a variety of reports. For example, California's recent Reform of Intermediate and Secondary Education (RISE) Commission presented some statistics that are hard to ignore: among them, a 1973 divorce rate in the state of 69 percent, and a suicide rate for fifteen- to twenty-four-year-olds that has more than doubled in the past ten years and that is now second only to auto accidents as the highest cause of death in this age group.

Many scholars, such as Bronfenbrenner and Coleman, have attributed these symptoms to the isolation of youth, their lack of adult role models, their lack of community, and other factors. They note that, unlike the Waltons of television, modern families do not work at home anymore, do not depend on their neighbors, are segregated by age, do not need the help of young people, and often favor keeping young people under the protective custody of the

schools and colleges, rather than underfoot or employed in the job world. Hence, today's youth have a hard time making the transition to work and adulthood. Career education is one method to ease this transition, and the community colleges are in a unique position to provide it, since they can play a facilitating and bridging role for people who are passing back and forth between school and work. Their student population is more representative of the population as a whole than those of other segments of higher education, and the growth of their career programs since about 1970 has exceeded that of their transfer programs.

But career education is now in the "retrenching" stage of policy evolution. The initial thrust that launched the first programs has given way to preliminary evaluation and inevitable reexamination—both of program concepts and of their mode of implementation. It is becoming apparent, for example, that most early work experience programs were undertaken with insufficient appreciation of their on-line management costs. Educators generally assumed that these costs would be absorbed by the host enterprise, but while management might agree to the costs, they did not expect any less productivity from regular employees who had to absorb the costs. Very little data is available on the capacity of work organizations to absorb learners. Robert Bolan's paper discusses this problem.

Since critical appraisals of career education are beginning to appear in the literature there is a need to develop conceptual distinctions that will help place such appraisals in perspective and clarify the main issues. Four dimensions can be used to classify these issues: first, a technical-social continuum; second, individualism-altruism; third, conservativism-liberalism; and fourth, centralism-decentralism. The remainder of this article describes issues on these dimensions.

a technical-social continuum

The first and most obvious dimension that differentiates among proponents of various solutions to the school-to-work problem is the choice of educational goals. The traditional emphasis has been on technical job skills. Vocational educators have conceptualized the transition problem as a deficit of such occupational skills. The solution is to make children aware of occupations in the elementary school, to have them explore occupations in the junior high school, and then to develop the technical skills in senior high school and community college or on the job itself. Students learn to

use a welding torch, operate a lathe, run a printing press, do body and fender work, or whatever technical skills are in demand. Marcia Freedman's paper reviews the avenues for such training.

At the other end of this continuum of goals the emphasis is on social skills (planning together, making group decisions, being assertive, and so on). These generalizable coping skills are common to almost any work organization. Decision making, problem solving, and communication skills are necessary in most interpersonal situations in life. Educators at this end of the continuum conceptualize the transition problem as the absence of opportunity for making decisions, solving problems, and accepting responsibility. The solution is to provide students with experiences that involve intensive interaction and interdependency with other people. Such experiences may not necessarily require any hand work, tools, or operation of technical apparatus. The major emphasis is on the social learning outcomes rather than on technical skills.

This technical-social goals continuum has some important implications for the type of instruction and site where learning should take place. If technical skills are emphasized, individualized instruction at a location that includes shops and appropriate hardware is required. If social skills are emphasized, team training in locations that contain adults with managerial responsibility are required. The characteristics of the staff are also influenced by choice of goals. Technical specialists and trained craftsmen may be in greater demand at the technical end of this dimension. A variety of mature role models from a much broader set of organizations may be used for the social goals. A technical emphasis requires different lead times for training, and vocational guidance information is needed at an earlier point in the student's academic career to help match students with jobs (see Charles Healy's paper). Naturally both technical and social skills are required for adult competence, but the emphasis of educators varies greatly along this dimension and the resulting policy decisions certainly affect the ability of schools and colleges to ease the transition of youth from school to work.

an individualism-altruism continuum

A number of current observers are saying that human nature is basically altruistic and that excessive individualism is a sign of pathology and the root of the youth transition problem. For example, Robert Hogan (1975) has described a theory about the role of human needs in organizations. Successful organizations whether

they be schools, work, or government, should, according to Hogan's role theory, contain three ingredients to satisfy its members: (1) social attention and interaction, (2) order and predictability in everyday affairs, and (3) opportunity for aggressive self-expression. From this perspective, an organization such as the Synanon foundation gets very high grades (see Brooks Carder's paper). Also from this perspective Levitan and Johnston (1975) have criticized advocates of radical work reform. They point out that hard work is here to stay and that restructuring of work is likely to be perceived by workers as a subtle con game to convince them that lousy jobs are not so bad after all. Levitan and Johnston argue that meaningful work and work productivity are in conflict and, furthermore, that many people enjoy the very "idiot jobs" that the humanistic work reformers find repugnant. They say that the work reformers are merely projecting their own tastes onto people whom they do not understand: "In discussing workers 'trapped' in routine factory jobs some workplace analysts often seem to see reflections of themselves: the descriptions of work sound as though the factories were filled with restless inquisitive consultants chained to assembly lines. There seem to be no placid TV watchers, none who may be pleased with simple repetitive tasks or high wages or long weekends" (p. 178).

Another prominent observer who has begun to recommend duty and altruism over egoistic individualism is Donald Campbell (1975) who, in his presidential address at the August 1975 meeting of the American Psychological Association, came out against the popular psychological view of human nature as being selfish and greedy and proposed that the traditional moral view of humankind as basically altruistic and cooperative more accurately describes the social evolution of our basic human nature. Since humans are insatiable animals, shifting their adaptation level upward when the level of pleasurable input increases, Campbell chided his fellow psychologists for having led people to believe that they are being cheated if their experiences are not totally pleasurable. Such unrealistic high expectation levels may be creating much frustration and dissatisfaction with work experience. A doctrine recommending duty rather than one promising pleasure might consequently produce more overall pleasure.

This is not a new point of view. Hobart Mowrer turned Freud upside down some fifteen years ago when he began suggesting that patients follow their conscience and publicly atone for their sins and change their ways rather than talk away their guilt. If you feel

guilty, do your homework; if you see a mess, clean it up. You will feel better.

The other pole of this continuum, more familiar in the psychological literature, advocates individualism as the normal state of humans. For example, Julius Seeman (1973) commenting on the problem of individuation stresses the dangers of close supervision of work experience and notes that while close supervision of work experience by the supervisor may shape a better product, that outcome may be obtained only at the expense of autonomy and self-responsible behavior on the part of the student. He proposes instead that supervisors "foster the process of awareness in the students" and "enhance their trust and utilization of their own experiential data" (p. 905).

In another example, the Sarasons and Cowden (1975) sympathize with young people wanting to do their own thing and have equated vocational choice with aging and dying. Their concern is that colleges pressure students to narrow their choices, declare a major, and hasten the process of becoming mired in the establishment. They point out that in interviews college students evince much quiet desperation about having been molded to accept realistic options. In a period of rapidly changing job titles it does not seem sensible to prepare students for a single career.

a conservative-liberal continuum

A third dimension that is similar to the individualism-altruism dimension is the conservative-liberal continuum. The liberal end of this scale expresses deep concern over the problems of capitalism with its emphasis on maximizing profits rather than quality of life. Proponents believe that the capitalist economy results in periodic crises that are independent of the will of individual capitalists, who try to save their profits by increasing exploitation of workers in cutting all unnecessary expenses pertaining to the quality of working life. The end result is gross inequity in the distribution of goods and power and the creation of unemployment, underemployment, and worker dissatisfaction. Liberal reforms are prescribed especially in the promotion of true industrial democracy and restructuring of the work system (see James Taylor's paper on restructuring).

Liberals see the community colleges as aiding the corrupt economic system by socializing approximately half their students to relinquish higher aspirations and to accept inferior work roles at the bottom of the existing occupational hierarchy. Such liberals view

with great suspicion community college efforts in such programs as cooperative education. In a recent critique of career education, Grubb and Lazerson (1975) went so far as to suggest that the introduction of work experience in the schools might have just the opposite effect from that intended and that "feelings of alienation, anomie, and disconnectedness, or physical manifestations such as hypertension, high blood pressure, and poor mental health might begin earlier," caused by the negative and boring nature of most "real work" (p. 466).

At the other, more conservative end of the continuum are those who basically accept the economic system as it is and who do not see job redesign or radical work reform as practical or useful. If anything, they fear that the expanding role of government reduces the entrepreneurial effort required to raise national productivity to a level that can provide a higher standard of living for everyone. They also fear a possible shift to totalitarianism.

Conservatives see the community colleges as aiding the economic system by preparing people for productive roles in the labor force or for further education. They deny the radical arguments that most work is alienating and cite evidence to the contrary from recent reports that the work attitudes and values of modern youth are positive and are similar to those of their parents. The conservatives call for a renewed commitment to the work ethic on behalf of public needs. They are encouraged in their efforts by follow-up studies of vocational education showing that community college graduates are fairly well satisfied with their current positions, even in those cases where their positions were not closely related to their community college preparation. Conservatives are pleased that recent follow-up surveys show exceptionally high percentages of graduates working in their field of preparation (especially in the health and public service fields) in the range of 70 to 100 percent, Wilms' study (1974) to the contrary notwithstanding.

a centralism-decentralism continuum

A fourth dimension is centralism-decentralism. The centralist position holds that strong institutional cross-linkages and central coordination are essential to a smooth transition between school and work. The problem of school-to-work transition is viewed as systemic, as being rooted in the problems of the larger society; hence, colleges cannot solve it by themselves. Multiple organizations must be involved.

The linking agents may take different forms. Paul Barton suggests networks of community councils representing schools, employers, labor unions, parents, service organizations, youth, and effective citizens. Bob Bolan of UCLA's Graduate School of Management has proposed establishing, in remote areas, regional centers that can serve as intermediaries between the business and government organizations in those areas and a variety of distant colleges. These regional centers would be coordinated at state and national levels.

Other countries have long since adopted more centralized models with national manpower planning agencies external to educational institutions and with strong roots in the occupational structure. O'Shea has proposed similar boards be established at the state level in the United States. He also proposes the creation of an agency in each state, with a counterpart agency at the federal level to provide planning services, financial support and even regulation, if necessary, of all nonacademic education, public and private. In addition, he calls for the upgrading of the status of vocational and continuing education by making a clearer separation between them and regular liberal arts colleges. In short, the centralist believes that the transition problem requires much more than changes at the level of the community college. While changes at this level certainly are necessary, they must be set within our overall reform of the entire system of postsecondary education in order to be effective.

At the other, decentralized end of this continuum, one has but to compare the incentives and costs to the various parties to such complex linking arrangements to question their feasibility (see Louis Solmon's paper for an analysis of such incentives). Such arrangements inevitably require the present community college faculty and administration to relinquish some autonomy control and perhaps some fiscal resources as well. Given the conventionalism of professionals, those presently in authority are unlikely to transfer power to other groups when community college prospects for continued prosperity are so great. Projections of continued high enrollments offer little stimulus for reform. In support of such an optimistic forecast, Carrol and Morrison speculate, from demographic trends that predict a larger, older population, that members of that population will most likely return to community colleges. Further, the forthcoming economic squeeze on parents with multiple children of college age due to close spacing of births in the post-1950 era will likely divert many more of these children to the less expensive community colleges. Consequently, the community colleges are

less likely to be affected by the overall decline in predicted enrollments for other higher education sectors.

Another argument against adoption of centralized systems used in other countries is that incentive conditions existing in those countries do not exist in the United States. For example, the strong ideological base in countries such as Cuba and China that provide the moral and social incentives for total community effort in assisting with the school-to-work transition does not exist in this country (see the papers by John Hawkins and Tom LaBelle). The serious threat to national economic survival in England and Wales that has motivated the development of a national manpower policy there also does not yet exist here. Nevertheless, there are some notable experiments of pilot projects in this country that demonstrate the possibility of coordinated institutional linkages.

conclusion

The purpose of sifting out the basic dimensions of the problem is to provide better perspective to the reader. Descriptions and evaluations of educational programs sometimes serve as a projective test that tells more about their authors than the phenomena they wish to describe. Differing opinions result from differing goals, differing views of human nature, differing views on the American economic system, and the plausibility of national solutions to problems. It is especially important to be sensitive to the underlying assumptions of policy-related reports, because solutions to nonexistent or exaggerated problems often exacerbate the very problems they were intended to solve.

As one reads the papers in this monograph it may seem that other dimensions than the four described above might better summarize the major assumptions. For example, one reviewer suggested a utopian-tragic dimension. Many taxonomies are possible. The main advantage of making such assumptions explicit is to assess the latitude for compromise and resolution of competing proposals. Authors of different proposals that have similar basic assumptions on the four dimensions would be expected to more easily resolve their differences without appeal to the adversarial process. Their research evidence can be expected to converge.

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Trend data associated with increased alienation and a decrease in coping skills among youth point to symptoms of inadequate socialization of young people to adulthood.

youth disintegration: the data

edward wynne

The process of growing up in America is dangerous and tension ridden for our children, especially for our adolescents. The disturbing truth is that the problem of American adolescents is widespread, that it is much worse than in the past, and that it is evidently becoming further aggravated. A high proportion of these troubled adolescents are present or potential community college students.

attitudes evincing alienation

Between 1948-1949 and 1968 successive freshman classes at Haverford College took the Minnesota Multiphasic Inventory test (Heath, 1968, p. 67). A sample of the student responses reveals the steady and incremental decline in youth attitudes sympathetic to cooperative and group activities: more and more, the students evince attitudes consonant with withdrawal from contacts or from responsibilities connecting them to others.

This growth of withdrawal attitudes among Haverford students was coupled with an apparent simultaneous increase in egoistic attitudes: between 1948 and 1968, the proportion of such

students who thought they could work great benefit to the world if given a chance rose from 40 percent to 66 percent, while the proportion of these seventeen-year-olds who thought they knew more than experts rose from 20 percent to 38 percent (Heath, 1968, p. 68). It was not clear how these increasingly withdrawn and introverted students could (1) render such benefits without human interaction, or (2) acquire the experiences needed to become so knowledgeable.

Other data about youth attitudinal trends shows that the Haverford patterns are representative of trends displayed by successive cohorts of late adolescents on many college campuses. For example, Hogue (1970) found that agreement with the statement: "Human nature is fundamentally more cooperative," declined from 66 percent and 70 percent to 51 percent and 55 percent, at Dartmouth College and the University of Michigan respectively. Additionally, student agreement with the statement, "Most of what I am learning in college is very worthwhile," declined from 67 percent and 74 percent to 58 percent and 57 percent, respectively. Moreover, when the students were asked to identify private and public institutions (for example, school, church, family) to which they felt related, the number and intensity of summed identifications declined from 296 and 259 to 269 and 206, respectively. Other studies on student attitudinal trends were conducted at several unnamed private colleges between the early 1950s and 1966 (Freedman and Kanzer, 1970, p. 158, 155). Those studies showed shifts on an attitudinal expression scale evaluating student desire for impulse expression from 41 percent (pro-impulse) to 54 percent, and a decline in the proportion of students describing the need to be liked as "very important" from 48 percent to 26 percent.

interpretation

The data demonstrate that increasing youth alienation is a long-range trend—at least twenty-five years old—and that it may assume many forms. The trend raises very important social policy issues, going to the central question of social continuity. The survival of any society depends on its ability to create successive cohorts committed to the continuity of its major traditions. Those traditions include matters such as the production of goods and services that will be used to maintain the young, the aged, and the ill; the maintenance (through taxes and military service) of a necessary defense establishment; the persistence of a decent level of public

order; and the commitment of citizens to constructive community and political activities to sustain the commonwealth. The modes of satisfying these traditions are mutable, and necessarily include adaptations. However, widespread and continuing commitment to the central themes of those traditions is central. Without such commitments, adults of productive age may fail to adequately provide for the emotional and physical needs of the young or old; society may not maintain an adequate level of defense; public disorder may pollute social life with fear, or simply make sociability so unpleasant that we adopt cellular modes of existence; and community and political activities may be abandoned to irresponsible and incompetent leaders and followers, and governed by short-sighted egoism. These disastrous outcomes can be the product of excessive personal cynicism, withdrawal, anger, selfishness, and social incompetence among our youths and adults. Essentially, these characteristics are related to alienation.

Suicide rates are a classical tool for the analysis of alienation. The rate measures a finite phenomena—the act of self-destruction. In any single society, such acts will tend to have a relatively constant significance—the individual was faced with overwhelming emotional demands.

The seminal study of suicide rate patterns was done by Durkheim. He concluded that, in modern societies, "suicide varies inversely with the degree of integration of the social groups of which the individual forms a part" (Durkheim, 1951 [1897], p. 209). Individuals who were identified with weakened or disintegrated groups were more independent, or as he put it, "egoistic." Durkheim described egoistic suicide as a type of suicide arising from excessive individualism.

But Durkheim was concerned with more than egoistic conduct. He also hypothesized that alienated persons would be excessively inclined towards loneliness and withdrawal. The use of drugs and alcohol are often especially associated with such attitudes. Sometimes, such use may be in a social context—a dope or drinking party—but frequent or intense use under any circumstances typically signifies that the substance is a "crutch," used to cover up the users' sense of social inadequacy. The same sense of inadequacy is implied by the responses to the attitudinal questions that suggest increasing drives towards isolation; for example, the growing stress on privacy as a personal aspiration. In other words, the data simply demonstrates the increasing egoism and loneliness among the young.

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conclusion

In his study on suicide, Durkheim was not especially concerned with schools, but with social institutions in general. He contended that the increase in suicide rates typical in modern societies is only an indicator of the tension created by modernization. He concluded his analysis with a plea for the creation of social institutions that would increase the individual's sense of group embeddedment. He fully understood that such institutions would appear in a guise that would disturb modern materialism, individualism, liberalism, and rationality.

Obviously, Durkheim's analysis is highly pertinent to the circumstances surrounding modern adolescents. In the past twenty-five to forty years, schools have become larger, more bureaucratic, and more removed from community life. Many junior high schools, high schools, and colleges have developed programs that bring individual students into only fleeting contacts with other students or faculty. The programs have given increasing stress to cognitive development compared to the stimulation of significant intergenerational, intercohort, and interstudent ties. Simultaneously, students have had diminishing experience in significant work, have had the median length of their school experience prolonged, and have more frequently grown up in bedroom communities, where they have been isolated from intergenerational and interclass contacts. It is thus quite natural that students would experience growing disintegration from communal life, and display increasing symptoms of alienation.

To deal with the challenges implicit in the preceding discussion, we will need to consider remedies that increase the variety and intensity of adult contacts for our youths. Furthermore, we must restructure the character of the interpeer contacts that do arise, so that pro-social attitudes and experiences occur. These prescriptions have already been suggested by a number of social scientists (Bronfenbrenner, 1974; Coleman, 1974; Wynne, 1974). Clearly, such complex long-range, evolutionary changes will have important implications for community college management.

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Work experience for youth can be a means of developing coping, decision making, and problem solving skills.

personal outcomes as goals of career education

evan r. keislar

A key feature of recent developments in career education has been the stress on broader, more affectively oriented outcomes. Although this emphasis partially reflects a renewed recognition of the importance of the contextual aspects of the learning process, it also is stimulated by the broader conception of the role of career education. Hoyt and others, for example, speak of career education as the preparation for all meaningful and productive activity "including leisure-time interests, volunteer efforts, citizenship responsibilities, and home life" (Hoyt and others, 1972, p. 2). While the fields of career guidance and vocational competence are still of central concern, this enlarged concept of career education has of necessity focused greater attention on the higher cognitive and affective goals of education.

These more general objectives of career education, however, have not been clarified or agreed on; each contributor to the field emphasizes different kinds of outcomes or at least expresses them in different words. Nevertheless, these learnings each reflect a set of general characteristics that an individual demonstrates in a wide variety of career settings quite independent of specific vocational competencies. These *personal outcomes*, as we shall refer to them, include such qualities as the following: decision-making skills, self-

management strategies, positive attitudes toward work (for example, self-expression and social contribution), motivation to achieve, a sense of responsibility, belief in the self as an agent (compare with Coleman's term *destiny control*), interpersonal skills, self-assertiveness without alienation of others, ability to learn from failure, and ability to evaluate one's own performance.

While the broader view of career education must be applauded on many counts, career educators must come to grips with the problems posed by the demand for such personal outcomes. It is the purpose of this paper to review some of the implications for career education that appear to be common to most of such outcomes. The discussion is oriented toward the design of programs for students approaching young adulthood, with special reference to work experience activities.

Although such personal outcomes are likely to be given high priority in most statements of educational goals, unfortunately, they have received rarely more than lip service in the schools for a number of reasons, some of which are impressive. Generally, such qualities have been regarded as part of a student's personality, formed early in life and practically impossible to change by schooling. These personal attributes consequently are seen as part of the given, the immutable characteristics of the individual learner to which instruction must be adapted where possible.

nature and assessment of personal outcomes

Although the broad outcomes were referred to earlier by a set of facile phrases, each one involves a broad and varied set of learnings. For example, although in some career education contexts the term *decision-making ability* refers solely to career selection, it is more frequently employed to denote the wide range of decisions of almost any kind which might be made in one's occupation. Used in this latter fashion, the term refers to the ability to solve almost any problem whose solution implies a course of personal action; the term *decision making* is as broad as *problem solving* itself. Although a wide range of processes is involved, most of them are situation specific: that is, in any given situation, the decision made is likely to be characterized by features appropriate only to the specific setting in question. At the same time, there are a number of general decision-making strategies or heuristics that individuals find useful in many broad classes of situations (see Keislar, 1969; Covington and others, 1972).

Unfortunately, the instruments used to assess these broad personal outcomes are generally far from adequate. A fairly recent and complete annotated index to all commercially available measures in the higher cognitive and affective domains (Hoefner and others, 1972) finds few of these instruments satisfactory. Most of the assessment devices use paper and pencil self-report techniques whose results can rarely be uncritically accepted. Yet, for many purposes, such methods are indeed valuable to use with young adults and their further development needs to be encouraged. But in career education the valid assessment of a broad range of personal outcomes calls for a variety of approaches, including role-playing activities, simulation games, the use of arranged work settings, and depth interviews. (Note the valuable insights obtained by Terkel, 1975, in his book, *Working*.) And since many personal outcomes are so complex and subtle that valid estimates of the *results* of a program may be impossible to obtain for the foreseeable future, it may be better to observe many aspects of the *process* during the period of instruction and to make inferences as to what is being learned.

programs to foster personal outcomes

To what extent can students be helped to develop in directions suggested by any of these personal outcomes? Which ones seem to be most amenable to change? There is little doubt that many of these outcomes are profoundly influenced by experiences outside of the schools throughout a child's life, but school experiences may have a significant impact, however modest. As might be expected, considering the state of measurement procedures in this field, few empirical data are available. The results from short, experimental studies have been mixed, but several have yielded positive results (Covington and others, 1972; Hill, 1974; Kolb, 1965).

More important in many ways are the promising results of projects conducted over a longer period of time. At the high school level, Mosher and Sprinthall (1971) introduced a program of psychological education including student participation in nursery school teaching and other responsibility-laden adult activities, coupled with group discussion; significant improvements on a number of personal outcomes were found including psychological and moral maturity. Alschuler (1973) also has reported success with school programs designed to foster achievement motivation among high school students.

In the final analysis, the studies must be carried out at the local school level. In planning and conducting career education programs, educators may find it valuable to explore the fields of affective or psychological education, which offer many suggestions and resource materials. But the particular pattern of goals and the approach adopted will depend largely on local needs, available resources, and staff interest and commitment; the pattern of success will differ from one school to another.

conditions to enhance personal growth

The importance of growth in personal outcomes becomes most apparent when the curriculum, following Thorndike's principle of identical elements, is made "realistic," culminating in actual work experience. It is here, for example, that interpersonal skills, self-management strategies, or attitudes toward work become most salient. It is here that the career educator and the student alike, by noting the learner's strengths and deficiencies, will gain insights into what might be done in these areas. Furthermore, it is just such a work setting where many personal growth outcomes can be fostered.

One value of actual work experience is that powerful adult rewards and challenges are encountered by the learners. To overcome the frequent resistance to change, strong motivation is likely to be necessary. Many young adults respond only half-heartedly to school programs where teacher approval, grades, or even diplomas constitute the major rewards offered; many others find little challenge in the routine of steady but slow progress toward competence. But adolescents, as McCandless (1970) pointed out, are "eager to enter the work world." The first introduction to adult occupational life is likely to be so deeply moving that it can offer opportunities for creative and profound changes.

A productive work experience can also provide much needed guidance in fostering personal outcomes. Although such qualities cannot be taught simply by imparting to the learner the best techniques, the learner is considerably helped by contact with a variety of experienced workers, each of whom constitutes a more or less effective model of work behavior and attitude. The learner is also likely to find a range of specific suggestions about what and how he or she should change. What a good work experience offers, in particular, is authentic and informative feedback for one's efforts, information that is often expressed in no uncertain terms! By

encountering such consequences of different ways of relating to the work environment, each individual has the opportunity to develop, sometimes in startlingly rapid fashion, the broad outcomes we have mentioned.

At the same time, even though they polish up their vocational skills, where learners face work situations they inadequately understand, where they grasp at straws to help them cope with the new demands, many new workers develop poor attitudes and superficial ways of relating to their work settings. The potential contribution of work experience is productive personal growth is consequently lost. Particularly in the case of personal outcomes, therefore, the career educator must make every effort to ensure that the young adult does encounter advantageous features of the work experience in motivation, guidance, and feedback.

the social environment of the work experience

In a program designed to foster broad personal outcomes, the social environment is critical. The student must be given real opportunities to work with older and more experienced employees, with supervisors, with the public, and with other beginning workers. Career educators must give considerable attention to the design of the social environment—simply requiring work experience as part of the training may pass on to the young adult many personal inadequacies of the role models that are counterproductive in the long run.

A good deal can be done prior to work experience in providing an effective environment for social learning. The powerful motivational effects of a group can be obtained by establishing a sense of belongingness and group participation. The use of simulations and role-playing methods (as, for example, in assertiveness training) can be profitably employed. The group can provide for the individual a more protected laboratory where he or she can try out new ways of relating to others without excessive personal risk. Social interactions such as those involved in cross-age tutoring can be particularly helpful. Katz (1967), for example, found that inner-city tutors at the secondary level were extremely motivated by this dyadic relationship and showed dramatic changes as a result of the new social expectations.

In selecting appropriate work settings, the career educator should pay particular attention to the adult models who are likely to influence the student. Such older employees are important not

simply because they demonstrate skills of vocational competence but because they model, in less explicit but fully as effective a fashion, personal qualities needed for a good work relationship. Since few work settings demand the adoption of a single pattern of personal outcomes, it is desirable that the learner encounter a variety of models. Not only do different models appeal to different students, but contact with a diversity of often conflicting styles and philosophies is likely to enhance personal growth at a more basic level.

conclusion

This paper has pleaded for greater attention in career education to what has been called the *personal outcomes*, the higher cognitive and affective qualities dealing with work that are all too frequently neglected. Although these goals are significant, there is considerable ambiguity about their nature and measurement as well as some question as to how much an educational program can affect change. It seems, however, that while theoretical development and experimental research is to be encouraged in these directions, it is the local school staff, probably with student participation, who can make major contributions to this field. For the present, the answer to such questions as "What outcomes, if any, should be fostered and how?" hinges largely upon the philosophy and resources of the local community and school.

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Community colleges can provide products as well as services to their communities by going into business as work-and-education institutions.

the community college as a productive enterprise

robert meeker

This paper proposes that community colleges should become productive enterprises—that a most direct means of serving the educational needs of school-to-work transition is to have a community college institution go into business. Furthermore, if the community college were to become (at least in part) a productive enterprise, it would become the sort of work-and-education institution that is needed. I will develop the following line of reasoning. First, there is an emergent need in our society to teach people the know-how of work—to give them a work education. Second, there is no institution, at present, addressing this need for work education; public education, despite the recent emphasis on career education, is not addressing the need. Third, the nature of work education needs requires a new institutional form—a combination of work orientation and educational purpose. Fourth, the community college provides the most workable base for instituting work education.

the need for work education

The vast majority of people finish their formal education without any significant experience with, or firsthand knowledge of, work. This is so despite the fact that many of these people have had

extensive general education, job skills training, or other sorts of vocational education. Job skills and work know-how are not the same; there are people with demonstrated job skills who do not know how to work—that, of course, is the central educational problem in the school-to-work transition.

The fact is that many people lack a knowledge of how to work, and yet this ought to be a fundamental component of a citizen's education in our society. Employment is a significant measure of any person's social worth; a person who is denied the prerequisites of work is also being denied a social place and one of those prerequisites is a knowledge of how to work. It is a fundamental social skill, at least as vital to social participation as the ability to read and write.

This is a new problem. Ours is the first generation to be confronted with this situation, and its manifestations, in social-problem proportions. It is only recently that school-to-work transition became identified as an educational problem. The problem is now emerging because we are seeing the effects of socioeducation reforms (especially child labor and compulsory education laws), cultural urbanization, and economic-technological progress—the result has preempted any real economic role for school-age citizens. Functional status in society is being deferred to at least eighteen years of age, and that deferment, for all practical purposes, is reaching upward to twenty-five years. For those who have no vicarious or secondhand contact with the economic culture, the problem is amplified.

In the final analysis this is a problem of acculturation. Direct and indirect contact with the economic culture has been restricted to the point of extinction by the forces of economic progress, social reform, and increasing urbanization. Yet no institution has addressed this need.

the need for an institution to provide work education

Public education has traditionally been the favored institution for meeting the general needs of acculturation in our society. While it may not always have solved all of the problems laid at its doorstep, it holds, in our history, a singular position in our society as the agency of acculturation. It is natural, then, that one would turn to public education as the proper institution to meet a newly identified need of acculturation.

There is a profound difficulty in using the school's past

record of response as a basis for meeting the needs of work education. The school cannot respond to this new need by simply expanding existing programs or even by adding new ones; the response, if the schools are to make it, requires more than additional curriculum. The know-how of work experience is required and that know-how cannot be abstracted, distilled, and transmitted as formal instruction; it requires experience. The way to teach people the know-how of work is to have them work in a workplace with its structure of responsibilities, demands, rewards, and expectations; the way for the schools to teach the know-how of work is to become a workplace.

The alternative to having the school become a workplace is for the school to administer extra-school programs that provide community- and industry-based work experience in parallel with the school's formal instruction. In contrast to these extra-school programs, the in-school work education has a number of advantages.

First, work education in the school removes the artificial barriers between work and education since both are carried out in the same place (school). Extra-school programs tend to retain the separation between work and education since they are carried out in different places. The more removed the work is from the school, the more difficult it is to maintain an educational value.

Second, work education can offer students a wide range of work experience both in terms of different kinds of work and different levels of responsibility. Extra-school programs are usually restricted in the types of jobs offered and almost never involve tasks above the lowest level of responsibility.

Third, work education has the student's work experience as one of its primary concerns—the student's work experience is integrated into the school system. In extra-school programs, the student-worker is not primary and usually not even essential—the student's work experience is almost never integrated into the business operations.

Fourth, work education is essentially an educational enterprise—work is an important part, but the institution's purpose is fundamentally educational. Extra-school programs, by contrast, are hosted by commercial enterprises—the institutions' purposes are fundamentally commercial, which may conflict with the educational nature of the program. If there is conflict, the educational intent will be sacrificed to the commercial demands.

In all of these respects in-school work education provides an

integration between work and education that is not possible when education is in one institution and work in another.

the type of institution required for work education

The most effective work education requires a new type of institution—a hybrid between the workplace and the school. The combination produces an institution with some distinctive characteristics.

Like any business or commercial enterprise, every participant would hold a job with all that is implied by a functioning workplace: responsibilities, concrete and immediate monetary reward, interaction with and/or interdependence on other workers, the day-to-day compilation of a performance record, opportunities for horizontal mobility, potential for advancement, and the opportunity to develop skills of supervision, administration, and management. In other words, this is the whole workplace—not make-work, not fill-in or add-on labor, and not a collection of part-time entry-level jobs—it is a functioning, productive enterprise in all respects.

Part-Time Work. The major point of difference between the work-education institution and a typical commercial enterprise, is that all workers (or at least all but a few) would be part-time. At least part of every employee's day would be devoted to education, so no one would work full-time. An enterprise managed and operated entirely by part-time employees is, in itself, an organizational challenge. It would present problems of inter-shift coordination and fractionation of responsibility that would not normally be encountered; in this respect, principally, the work-education institution would not be a typical workplace. That does not compromise its purpose; on the contrary, its unique value is that, by having the enterprise managed and operated entirely by student workers, the range and breadth of their work experience is significantly increased.

The educational side of the hybrid work-education institution would not be radically different, in function and structure, from the typical school institution—essentially individualistic in its orientation (with no critical interaction, interdependence, or cooperation with other students); a reward structure that is symbolic and related to highly formalized procedures of evaluation, no differentiation in terms of role status (all students being the same in terms of role expectations and responsibilities with no hierarchy or functional differentiation), and, with the uniformity of role status, no system of role status advancement or promotion. These characteristics of the school, which stand in striking contrast to those of the workplace,

would not be changed; the two structures would exist side-by-side in the hybrid institution.

Flexible Education. The major difference between the educational side of the work-education institution and the typical school is the need to make instructional programs more individualistic and more flexible in their operation. In effect, the school side of the operation should be responsive enough to student needs that no one would be precluded from a job opportunity simply because the instructional program was too rigidly defined to accommodate a new job time. This flexibility may require more reliance on individual rather than on the group mode of instruction; it may mean increased class offerings; it may mean some reorganization of the curriculum and instructional procedures. However it is accomplished, there must be explicit recognition that all students will spend some part of their day working, not as an adjunct activity to their education but as an essential part of it. In the work-education concept, the work portion is no less important than the instructional portion; conversely, the educational portion is no more important than the work portion, different from the typical school operation, the instructional program and procedures must be designed to complement a work program for every student.

In a work-education institution there would be opportunity for greater flexibility and accommodation to individual needs, to employment procedures and, generally, to the operationalized relationship between the two sides of the institution. An applicant who lacked some formal training to qualify for a position could, for example, be given the position on a provisional basis, or could be promised the position contingent on completion of the required formal training, which would, of course, be under the control of the same institution; the possibilities for adjustment and coordination are more meaningful in a single institution. Then, too, the entire matter of job-qualification requirements would be open to review; the requirements, if exaggerated, could be made more realistic and commensurate with the actual demands of the job.

the community college as an institutional base for work education

Work education is appropriate to any level of schooling. With the proper design, a type of work education could be instituted at the secondary and presecondary level; such a design has been drawn and proposed (Meeker and Weiler, 1971) but has not been implemented. There are institutions, at the postsecondary level, that incorporate

some of the proposed features of the work-education institution. Berea College, in Kentucky, for example, requires all students to have jobs as an integral part of their educational experience. (As an indication of the degree of integration of work into the overall program, the college has a Dean of Labor.) Such examples are isolated and very often occur in rural or semirural settings, where, ironically, the need for work education is less than in urban areas. The general point is that work education, in some form, is appropriate at any level of schooling.

What level of schooling is most appropriate for work education? The advantage of having work education at the secondary and presecondary levels is that work know-how is an important part of a social education and should be acquired as early as possible. Early work education has another advantage. School-age citizens, no less than adults, need the sense of belonging that comes from having a meaningful job. Work education would provide meaningful jobs and a sense of social place for students in their most formative years. Despite the obvious advantage of starting work education as early as possible, the difficulty in having work education at the secondary and presecondary levels is, as we have already discussed, that the school must become a workplace and in doing so must make accommodation in the educational program to the requirement of the work program. The type of change that is involved is fundamental and structural in character; it would entail dramatic and unsettling changes that are probably beyond the mettle of public schools at the lower levels.

The disadvantage of postponing work education until the postsecondary level is that many who most need it, who have become the victims of deferral, will have lost their staying power, and will have dropped out of the system before they have had a chance to gain work experience. Despite the obvious disadvantages of starting work education so late, the overriding consideration is one of practicality: the community college, with its history as a bridging institution and its demonstrated flexibility in meeting emergent social needs, is probably the only place in the spectrum of public schooling that is institutionally capable of providing a new, albeit needed, form of education.

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Student-designed field experiences for which students receive course credit can become integral components of undergraduate education.

student-designed field experiences

jane s. permaul

Most community colleges serve a broad spectrum of students. Consequently, one finds an enormous range of student interests, abilities, aptitudes, learning styles, and other personal characteristics on any given campus. This diversity creates many problems in designing appropriate educational activities to meet the diverse needs of the students. Those educators concerned with the school-to-work transition of students share similar challenges faced by other community college educators.

The concept of contract learning as a means of providing more individualized education to the increasingly heterogeneous student population has gained much prominence. Because it involves the experiential development of practical skills in the learning process, both during formulation and implementation of the contract, this concept has been and should be considered as an alternative to prepare students for a smooth transition from school to work.

Conceptually, contract learning enables a student, in collaboration with a faculty and field mentor, to develop a *tailored* learning plan that specifically addresses the student's educational needs. The contract is a written commitment, designed primarily by the student and focused "on the student's decision *to want to*

learn, what to learn, and *how to learn*" (Hodgkinson, 1975, p. 85).

In practice, however, too much emphasis has been placed on the values of the *learning contract* as an administrative tool with uses similar to those of a work, service, or other type of contract. Little emphasis is given to the *contract learning process.* Yet the learning resulting from the process of formulating, implementing, evaluating, and modifying a learning contract is essential and valuable to any work a student undertakes.

the student-designed field experience approach to contract learning

Under the concept of the student-designed approach, students have the opportunity to design a field study with the use of a learning contract that meets the particular concerns they have regarding school-to-work transition. As part of their learning contracts, students, assisted by both faculty and field mentors, need to state clearly the following:

Goal or Problem. Students should state what their educational *needs* (*desires*) are in relation to making the school-to-work transition. Are they concerned about making career choices, acquiring technical work skills, or improving coping and interpersonal skills?

Field-Study Objectives. This section provides students with an opportunity to state *what they plan to learn.* Obviously these objectives should relate closely to the statement of goal or need. In comparison to the goal, these objectives state more specific expectations, which, in order to be useful, should be stated in measurable terms. The expected outcome for each objective also needs to be stated—including the method used, conditions under which it will be implemented, and persons involved.

Implementation Plan. In this section students describe *how* they plan *to learn,* that is, how they propose to achieve the objectives that have been set forth. In cases that involve actual work experiences, a carefully designed job description (including description of field sites) should be included. A time-phase plan to achieve each objective also can be helpful.

Evaluation. Both formative evaluation and summative evaluation should be considered. Too frequently the learner leaves this task solely to the faculty and field supervisor in charge. This practice may be acceptable for the purpose of assigning a grade, but it

has little value to the learner. The learner should be involved, as the evaluation is an important and integral part of the learning process. He or she needs to know what worked and what did not, and why.

designing field experiences as a learning process

As noted earlier, most educators who have used contract learning embrace it as a means of individualizing education. Those involved in experiential learning have also found it to be an effective method of joining ideas and knowledge with action and application. However, few have examined the learning values inherent in the design and implementation process of a learning-contract field experience, apart from the learning to be gained from fulfilling the contracted objectives.

In the design and implementation process, student initiative and student responsibility are required for goal setting and goal achievement. The mentors, be they faculty or field personnel, are simply "midwives" (a description of teachers shared by Socrates and Plato), assisting the student with the development and clarification of learning objectives and the realization of these objectives and evaluation of the same, based on agreed-upon criteria. Other curricular activities on campus seldom require students to exercise comparable initiative and responsibility. Yet such qualities are very important in the world of work.

Beyond achieving initiative and responsibility, developing learning objectives forces students to think clearly and to ask such questions as "Who am I?" "Where am I going?" "Where do I want to go?" and "How do I get there?" Such apparently simplistic questions are not usually considered by students in the course of their academic pursuits on campus. However, this question-asking exercise usually leads to increased self-awareness, which is the first step toward self-understanding, self-direction, and independence.

The process also requires students to work on a more equal basis with mentors; thus students are required to become actively involved in making decisions about and taking responsibilities for their learning. Such a relationship resembles the work world more than the academic world.

On the more practical level, through this process students have an opportunity to develop a number of valuable skills in making the transition from school to work. Problem-solving and planning skills are required in developing the implementation plan of the learning contract. This plan includes determining the most

effective ways to achieve the set objectives using existing school and field resources and staying within the limitations set by the environment. Where appropriate field sites are not available, students are challenged to develop alternatives.

Students also need to develop communication skills. First, written skills are necessary to describe clearly what one proposes for a field study in the form of a learning contract. Verbal persuasive and negotiating skills also are needed in arranging for a field site, field mentor, faculty mentor, academic credit, and so on.

Finally, resource development skills are essential. For example, students need to develop their own bibliography to supplement their field learning. They need to find transportation to and from field sites. If special equipment is required, they need to find access to it and so on. Experienced field-study students, therefore, usually become much more resourceful and independent.

evaluating student-designed field experiences

A complete evaluation design for field learning would look for the same kind of information sought in other educational programs—evidence of effective field-study design (objectives, implementation plan), student progress, effective supervision, and the effectiveness of the field environment for learning.

In assessing the study design, the guide should be the learning contract developed by the student with clear objectives, plans for implementation, and evaluation. Such an assessment also provides information essential in determining the type and number of credits that can be granted when the contract is fulfilled.

In assessing student progress, emphasis should be placed on: (1) continuous or formative evaluation, and (2) summative evaluation of learning outcomes. The record-reflection log (Permaul, 1975, p. 69) has proven to be a valuable tool for capturing the learning process. Abstracting the log data onto a two-dimensional matrix or graph provides an excellent summary of the student status, with one dimension of the matrix listing the learning areas established by the objectives and the other dimension registering the levels of competence-achievement. This method of documenting student progress satisfies both formative and summative evaluation needs.

Assessment of field supervision has proven to be a complex matter. The learner's evaluation is one valuable source; his or her logs are another. Finally, heavy reliance has been placed on the

standard evaluation, however informal, set by the practitioners and the field personnel.

The assessment of the field environment is also in need of further development. Site visitations by faculty mentors are good sources of information. Other helpful measurement techniques have been developed by such social ecologists as Rudolf Moos (1974) and Albert Mehrabian and James A. Russell (1974).

Most learning outcomes for field experiences related to school-to-work transition fall in such areas as career skills, interpersonal skills, social coping skills, and technical career knowledge. The competence-based approach lends itself to evaluating such outcomes. This assessment practice is being used more and more. Some excellent measures have been developed (see, for example, Cooperative Assessment of Experiential Learning, 1974). But in the final analysis, the learning contract should specify the conditions that determine competence.

summary

Given the diverse needs of students in resolving the problem of school-to-work transition, opportunities should be made available for students to design their own field experiences with the use of a learning contract. This alternative approach has certain advantages. First, the learning contract provides students with individualized flexibility while at the same time emphasizing student initiative, involvement, and responsibility in planning and implementing a contractual commitment. Second, the development of the learning objectives for the field experiences requires the student to become involved in a self-exploratory process, which often leads to increased self-understanding and self-direction. Third, the process of designing and planning the field experience provides opportunities to exercise problem-solving skills, verbal and written communications skills, and resource-development skills, all of which are valuable for coping effectively in the work setting. Finally, the use of the learning contract in designing field experiences ensures systematic and intelligent planning, thorough preparation, and careful documentation, which enhance not only the measurement of learning for creditation but also the diagnostic assessment, an integral part of effective learning.

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Design criteria for evaluating work experience programs can be applied to the assessment of cooperative education programs.

cooperative education and acquisition of generalizable coping skills: an assessment

mark g. ginsburg

When young people go to work, they must not only exhibit technical job skills, they must also learn to cope with the normative social system of the workplace. (Such norms are informally derived and often consist of implicit rules governing an individual's behavior in social settings, rules that sometimes reinforce and other times contradict the formally established regulations.) Consequently, in addressing the issue of school-to-work transition among eighteen- to twenty-two-year-olds, we must be concerned with more than technical-occupational skills. We must also develop in students important coping skills, such as the abilities to recognize and even influence the normative systems that exist in workplaces.

It is reported that (1) the technical "skills for most occupations are learned relatively easily and quickly" (Grubb and Lazerson, 1975, p. 468) and (2) "the majority of workers . . . picked up their occupational skills informally on the job" (see Marcia Freedman's section of this monograph). However, it is also reported that (1) young people's inability to cope with the real demands of work constitutes one of the major impediments in their transition from

school to work (Garbin, 1967, p. 27) and (2) young people "do not necessarily see the all-important, informal structure (in workplaces) and have to be taught the 'rules of the game' " (Silberman, 1975, p. 6). It seems reasonable, therefore, for educators to focus on the acquisition by students of generalizable coping skills (the ability to recognize and influence the normative systems in workplaces).

criteria for facilitating the acquisition of generalizable coping skills

The following criteria can be used to assess the extent to which the acquisition of generalizable coping skills are being facilitated: real-life situations, group settings, variety, exploration, preparation, ongoing analysis/reflection, and continuous feedback.

Real-Life Situations. To facilitate the acquisition of any skill, it is essential to provide experiences that require the performance of such skills, but in a gradual and systematic manner. It follows, therefore, that in order to facilitate the acquisition of generalizable workplace-coping skills, experiences in business, industry, and government (or in elaborate simulations of such workplaces) must be provided. The recommendation that direct work experiences be provided for youths to facilitate their transition to adult positions in the society is not new (see President's Science Advisory Committee, 1973; Special Task Force on Work, 1973). Merely, providing students with an entry-level job in one organization, however, is not satisfactory. As Coleman (1972, p. 9) notes, "the other parts of education require just as much explicit planning as does schooling." The ensuing discussion offers an outline of a few of the dimensions for such explicit planning.

Group Settings. Normative systems evolve through group interaction. When people convene to accomplish a formal task, as Homans (1950) has outlined, informal rules (norms) are generated to regulate each other's behavior. These norms are directed not only at task-related behavior but also at other aspects of group life. For example, norms may govern worker productivity rates, as well as the topics for conversation on the job. Since group-based interaction is a prerequisite for the evolution of normative systems, if students are to learn to recognize and influence normative systems, they must be exposed to and involved in work situations where group interaction obtains. Not all work experiences provide group settings.

Variety. In seeking to achieve generalizability a variety of experiences is mandatory. A variety of experiences provides several

settings in which to practice skills. A variety of experiences also presents a more diverse set of role models to observe, thus increasing the number of potential combinations of strategic behaviors from which a student can draw in the future. Variety can and should be provided both in depth and breadth of experience. Students would profit from work experiences in several different organizations, but also in different positions, at different levels, and in different sections of a single organization. Multiple-position work experiences, in particular, are vital for acquiring skills in recognizing and influencing normative systems.

Exploration. To facilitate the acquisition of generalizable coping skills, work experiences for students should not consist merely of carrying out specific technical tasks within the organizations. Given the alienating nature of many jobs, it is especially important that a students' experiences in the workplace be planned to involve general observation, listening, and questioning—that is, using and refining their skills in recognizing and influencing the extant normative systems. Students should be participant observers, with equal emphasis on participation and observation. We do not want to increase young people's alienation by making them workers (see Grubb and Lazerson, 1975; Silberman, 1975), but to use the workplace to enhance their education.

Preparation. If the school-to-work transition is problematic for graduates, obviously it will be at least as difficult for students. Moreover, students cannot merely be placed in a variety of work experiences and told to "explore." As Millonzi (1974, p. 130) points out, "without the capabilities of reasonably objective observation and analysis, the work experience may contribute little to one's learning." One way to ease the school-to-workplace transition for students and enhance the amount of learning obtained during the work-experience internship is to provide specific and extensive preparation. In addition to communication and numerical skills (which schools now usually provide), this preparation would entail (1) a general introduction to the worlds of work; (2) and identification of basic ideas and constructs (for example, norms and interaction) with which students can organize their thinking about workplaces; and (3) a delineation of elementary qualitative research techniques and principles (to enhance students' ability to observe, interview, and otherwise glean information about normative systems in workplaces).

Ongoing Analysis/Reflection. Even the most extensive preparation would not be sufficient to allow students to benefit com-

pletely from their work-experience internships. There must be some vehicle for clarification and elaboration during the work experience. Students need the opportunity to discuss their experiences, to sort out their impressions, and to solidify their course for subsequent action and exploration. That is, students need to be able to "step back" from their experiences for purposes of analysis and reflection.

Continuous Feedback. Feedback in the form of praise and criticism is an essential component of any effective educational experience. In order to systematically shape students' generalized coping skills, special effort should be made to provide students with feedback both during and after their work-experience internships. In other words, although participation in the workplace may provide some feedback naturally—students will experience the consequences of their actions—the specificity and systematic nature of the feedback that students receive must be increased.

cooperative education programs in the community colleges

The recent development of cooperative education programs, given impetus by the Vocational Education and Higher Education Acts of 1968, represents a major, systematic attempt by community colleges to aid young people in the school-to-work transition (Dawson, 1971). Cooperative education programs combine experiential learning in places of work with traditional academic study, using either alternate semester or parallel patterns. Generally, these programs have borrowed the vocational education model widely used at the secondary level, focusing on the training of specific technical skills. Several community college cooperative education programs, however, "have adopted what might be referred to as the Antioch model . . . whereby personal development and exploration, including career exploration, are stressed" (Heerman, 1973, p. 9). In assessing the extent to which cooperative education programs are structured in such a way as to facilitate eighteen- to twenty-two-year-olds' acquisition of generalizable coping skills, our focus will be on these latter programs.

Using these seven criteria as a guide, we will assess the extent to which community college cooperative education programs facilitate the acquisition of abilities to recognize and influence normative systems in workplaces. The focus will not be on all such programs, nor even a representative sample. Rather, several operating programs, which have been extensively described in the literature, and

the ideal, Comprehensive Cooperative Education Model (Heermann, 1973) will provide the substance for the subsequent discussion.

Real-Life Situations. As previously noted, work experience is an integral component of cooperative education programs. The experiential learning, which supplements traditional, in-class, academic instruction takes place in businesses and other organizations with which the college has formed a cooperative arrangement—often through the initiative of students. Work-experience internships are sometimes provided on the campus in one of the college-related operations. The simulation approach has not received extensive trial among the exploratory-type cooperative education programs. At Greenfield Community College (1973) in Massachusetts, for example, initial attempts to establish simulations of real work experiences led organizers to conclude that the task is almost impossible.

Group Settings. Little direct evidence is available on the extent to which cooperative education, work-experience internships are taken in group settings. However, two of the reported values of the ideal cooperative education program are the "sensitization to interpersonal relations and the development of social skills" (Heermann, 1973, p. 37), indicating some emphasis on providing students with work experiences. Moreover, one criterion on which students enrolled in several cooperative education programs in California are evaluated is "relations with others" (Coast Community College District and San Mateo Community College District, 1972).

Variety. In the ideal cooperative education program (see Heermann, 1973), work-experience internships would be provided in more than one organization. In actual practice, multiple-organization internships do not seem to be the norm, primarily because the incentives operate against them. (Employers received greater return on the training invested the longer a student remains on the job. Moreover, students often prefer to remain with one employer in order to secure full-time employment after graduation.) For instance, while Millonzi (1974) reveals that a number of liberal arts transfer students at LaGuardia Community College (New York) do their three work-experience internships in different organizations, James Garmon, the Director of Cooperative Education at Orange Coast Community College, reported (personal interview) that students tend to remain with one employer for their entire set of work-experience internships.

There is no evidence in the literature that cooperative education students assume a variety of positions in a single organization

for their internships. Given the nature of most workplaces, wherein workers perform one, often limited task, it would be surprising if cooperative education students rotated among various positions in an organization. Furthermore, there is a tendency for cooperative education students to work at entry-level jobs, in that according to Heerman (1973, p. 43), one of the advantages to employers of participating in cooperative education programs is that they can release employees from less complex tasks—students can perform such tasks.

Exploration. As discussed above, many cooperative education programs focus almost entirely on technical skill training—a focus lamented by Dawson (1971). Nonetheless, evidence of cooperative education programs' potential for providing exploratory experiences is available. San Mateo Community College District (1974) in California reports that learning objectives for students' work-experience internships can pertain to general organizational understanding, although they often bear on the learning of technical tasks. At LaGuardia Community College (New York), where all liberal arts/transfer as well as vocational/career students participate in cooperative education, the focus of many work-experiences is necessarily exploratory in nature (Soper Associates, 1972). Other community college cooperative education programs similarly stress a general understanding of workplaces, rather than the ability to perform specific technical tasks. For example, at Santa Fe Community College in Gainesville, Florida (Abbott, n.d.), and at the Borough of Manhattan Community College in New York (see Heermann, 1973, pp. 191-193) cooperative education students are required to do a term project during their work-experience internship. This term project consists of a history of the organization and a description of the student's job and its relationship with other aspects of the operation. Finally, Greenfield Community College (1973) in Massachusetts reports that the major goal for their cooperative education program is to explore the world of work and the possibility of its alteration in a realistic manner.

Preparation. At Miami-Dade Junior College (Florida) the career-orientation class stresses human-relations skills and communication principles (Heermann, 1973, p. 139). Similarly, at Greenfield Community College (Massachusetts) the central component of the cooperative education program is a preparatory course on the sociology of work (Greenfield Community College, 1973). The focus in the preparatory course at LaGuardia Community College (New York), however, is on introducing students to the "concept of

cooperative education" and on teaching "skills, such as job-interviewing and resume preparation" (Heinemann, 1974, pp. 16-17).

Ongoing Analysis/Reflection. In practice, community college cooperative education programs have made some progress in providing for the ongoing analysis/reflection mechanisms. Santa Fe Community College (Abbott, n.d.), LaGuardia Community College (Soper Associates, 1972), and College of the Mainland (Heermann, 1973) have instituted concurrent work-experience practicums. And although the major focus of these seminars is not on recognizing and influencing workplace normative systems, these issues may arise as students discuss their experiences. Most programs also have college coordinators, although the case load is usually too large to allow more than limited consultation time. Most programs also have supervisors (employed by the cooperative organization); however, the literature says little about the extent to which supervisors aid students in analyzing and reflecting on their work experiences. Finally, with respect to regular college faculty members, the report is not satisfying. For example, even at LaGuardia Community College, where considerable effort is made to select and train faculty for their critical role in the cooperative education program, the degree of integration of classroom and internship experiences leaves ample room for improvement (Soper Associates, 1972). Millonzi (1974, p. 131) relates, moreover, that some liberal arts/transfer students at LaGuardia "complain of the irrelevant content of the work experience primarily because that learning which is derived from the work process is [seldom] reflected upon."

Continuous Feedback. Although coordinators help students plan their work/study programs—including choice of objectives to be achieved—they are not normally in a position to provide the feedback in a systematic and continuous manner. Their role is usually limited to collecting the relevant information for a final evaluation of students' performance. The fact that the coordinators are rarely physically present—visiting each student's job site only once or twice a semester—precludes an active role in providing continuous feedback.

The job-site supervisor is also potentially in a position to provide the immediate and continuous feedback for shaping the student's skills. If supervisors are selected on the basis of their pedagogical skills, as Brown (1971) suggests, and are given released time and support, chances are that students will receive the requisite feedback. If supervisors have limited time available or view their roles as limited to training students in the performance of technical

tasks, students' generalized coping skills will not be effectively shaped. It should be noted that employees other than the designated supervisor may informally provide students with feedback. However, especially if these employees have not been apprised of learning objectives, it is unlikely that this feedback will be systematic.

conclusion

Community College Cooperative Education Programs are designed to serve many functions—not the least important of which are economic. For instance, students are provided with "working scholarships," employers are provided with highly motivated, entry-level workers, and the colleges receive increased financial support (as a result of increased enrollment from two populations: lower-socioeconomic-status youth and full-time, adult workers). Cooperative education programs also contribute in several ways to the function of facilitating young people's transition from school to work. For instance, counseling and job-placement services as well as the work-experience internship help students secure postcollege employment. (A report from the Coast Community College District and San Mateo Community College Districts, 1971, indicates that between 50 and 75 percent of their cooperative education students become full-time employees in the place where they did their internships.) Students also receive some technical training.

Another potential avenue for aiding eighteen- to twenty-two-year-olds' school-to-work transition is by facilitating their acquisition of generalizable coping skills. The performance of community college cooperative education programs on this note is mixed. As noted above, most cooperative education programs focus on technical skill training, and thus the shaping of abilities in recognizing and influencing normative systems is left to chance. In those programs that have adopted the Antioch model, the performance is better, but not superlative. An assessment of these programs, in terms of seven criteria for determining the extent to which the acquisition of generalizable coping skills is facilitated, yields the following results: (1) they are excellent with respect to providing experiences in *real-life situations*; (2) they are good in terms of the *group settings* and *preparation* criteria; (3) they are fair in relation to the *exploration* and *ongoing analysis/reflection* criteria; and (4) they are poor in terms of the *variety* and *continuous feedback* criteria. It should be emphasized that these are "averaged" ratings and that there are

major differences among programs on most criteria. Furthermore, it should be noted that the ideal cooperative education model delineated by Heermann (1973) usually measures up better on the criteria.

Efforts to improve the cooperative education program's ability to facilitate the acquisition of generalizable coping skills will require incentives to maximize performance on the above criteria, though clearly this will not be accomplished easily.

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The use of the workplace as an educational site may help bridge the mismatch between student values and available work roles.

redesign of work for educational purposes and for quality of working life

james c. taylor

The mismatch between the human values built into organizational jobs and the values employees bring with them to those jobs has existed since the onset of the industrial revolution and has been widening ever since. Several of these mismatched worker values that are especially relevant to the considerations of educational purpose can be described in more specific terms as follows: (1) employees value the opportunity to grow and learn on the job and to feel competent in the application of that learning; (2) employees value the opportunity to use their present skills and abilities on the job; (3) they value the opportunity to identify and move toward a desirable future; and (4) they value participation in work-related decisions (including those decisions involving aspects of the values listed here).

Nonsupervisory jobs (not merely entry-level jobs) in business and industry currently provide very little with respect to these employees' values. In general, these jobs make low use of skills and abilities taught in high school. These jobs are designed such that most of them can be learned very quickly, and the overwhelming

majority of them represent dead-end futures unless the employee's career is bound up with vertical advancement—up and away from the type of work at hand to one of the limited number of supervisory positions that may or may not use current skills and abilities and that may in turn be dead ends. Finally, most jobs in organizations provide little opportunity for the employee to seriously effect changes at the workplace with respect to the listed values.

attempts to remedy the situation

All of this is not new, of course. The problems of fractionated work and the impersonal demands on a worker expected to carry out only one prescribed task or job are well documented. As long as sixty years ago managers attempted to compensate for some of those effects through higher pay (Ford's $5-day was instituted in 1914). During the 1930s the institutionalization of collective bargaining and the emergence of "human relations" pushed the subsequent move toward increased participation—which in turn ameliorated some of the worst examples of industrial job design. Pension schemes and job rights made futures possible but did not much improve either the quality of those futures or the dignity of achieving them.

Some recent organizational innovations have continued to help make jobs and work temporarily more palatable, but these innovations have not been directed toward the sort of workers' values that relate more to the development of desirable futures and the role of work for educational purposes. For example, new work schedules such as the four-day week or "flex-time" provide workers with more flexibility and control over extra-work activities, including school, but they have negligible direct impact on education and training to make present work the base of a desirable future. Some companies have taken a more active and supportive stance regarding continued education—workers are permitted time off for classes or classes are brought to the workplace—but the impact on learning that is *relevant* to one's present job or for moving toward a desirable future is in most cases negligible. Some (perhaps many) employees may move upward into supervisory and managerial ranks, but the jobs and work they leave behind for others remain as dead-ended as ever.

Many companies are beginning to install "assessment centers" in order to identify management potential and to provide career counseling and employee development. Limited experience with

such programs reveals that not only do they ignore the career potential of nonsupervisory jobs, but they are also frequently used merely as a screening and placement device for promotions from supervisory to management jobs.

Finally, companies are increasingly using innovations such as job enrichment, job enlargement, and job rotation. Although these approaches can be used to improve jobs at nonsupervisory as well as supervisory levels, they usually ignore the longer-term aspects of those jobs, such as the aspect of *continual* growth and learning that workers value. The enriched job, once learned, can be as monotonous as the one it replaced. Job enlargement and rotation provide added variety and temporary challenge to a job, while enrichment usually provides added responsibilities, and while these innovations seem to make some difference for many workers, they make a lot of difference for only a few. These job changes are not long-term in effect, nor are they intended to be. If these enriched jobs are designed to be learned by workers in a reasonably short period of time as most of them are, then it stands to reason that most employees will tire of them reasonably soon.

sociotechnical design: a promising remedy

Another approach that some organizations are taking to improve the quality of working life is "work-system restructuring" or "sociotechnical design." This generic approach is specifically intended to satisfy the worker values listed and to meet the organizational requirements for effective performance. Instead of beginning with a single job as a target of change, sociotechnical design begins with a *system* of jobs, together with the associated organization and technology. The resulting work system is not only more effective technically, but is more flexible as a result of a greater use of employee (nonsupervisory as well as management) potential. The system coordination is designed to be carried out within that system rather than from without, leaving the full complexity of operation also within. The tasks required by such a system are usually far more complex than formerly and are usually beyond the capabilities of any one person. These tasks require the cooperation of others within the system, just as traditional supervisory positions in conventional systems require other people in the form of subordinates. Employees in a work system designed under sociotechnical principles find that work demands are broad enough to permit their own development through the use of several levels of skill and

knowledge. Employees develop multiple and overlapping skills with one another and are rewarded for doing so. Not only do employees within these new work systems coordinate among themselves for strictly work-related purposes, but they also work together to optimize satisfying work on a day-to-day basis. All employees in such a place will, if they wish to develop maximum competence (and pay), need to learn many more skills than would nonsupervisors (and many supervisors) in conventionally designed work systems. Working at their own pace and level of desire for growth, employees may take years to acquire the requisite skills and knowledge. This is in stark contrast to the short training time of the usual industrial job and to the meager training additions of the enriched job. The system begins to approach a *job with a future*—a job that does not require "getting out of" in order for many employees to feel competent, a job in which a complete set of nonorganization specific technical, management-coordination, and decision-making skills are learned.

an example of the sociotechnical design in practice

This sociotechnical design of work systems is not new, having been originated in Britain in 1950. American examples are limited, but the ideas are spreading. One illustrative case is a General Foods processing plant (in Topeka, Kansas) where in 1971 seventy employees were grouped in work systems responsible for a whole production process. Moreover, employees are paid on a formula based on the number of jobs in that system that they are *able to do*. In the four years since the sociotechnical design was implemented, the General Foods employees have exhibited an ever-increasing interest in their own skill acquisition and have made use of outside educational facilities.

The case of the General Food's processing plan and other examples of successful implementation of a sociotechnical design of workplaces indicate that workplaces can be redesigned to achieve a closer match between employee values and organizational work roles. Such efforts to redesign the workplace for educational purposes and to improve the quality of working life do not seem to sacrifice organizational effectiveness.

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Community college placement officers and career counselors should take the lead in linking educational resources in the work community with the college.

placement services and career development

charles c. healy

College placement often begins on a sour note. The prospective graduates arrive with high expectations of jobs that will reward their years of hard study. Some are not sure about the exact job they want; others do not know what the job they are seeking really involves; and many lack the experiences needed for obtaining desirable jobs. Unfortunately, only after conferring with the placement officer do prospective graduates realize that their lack of information and experience will stop them from working at desirable jobs. Then they become disappointed and angry because their education has been incomplete.

Their situation is more than a personal misfortune. At best society must underwrite additional training and lose their productivity for several months, or even years, while the graduates acquire the experiences they might have obtained before graduation. Too often society loses even more, for the graduates settle for jobs below their potential and remain embittered and disillusioned.

Their problem, of course, is partly caused by their own misjudgment, but it is also attributable to the increasing difficulty of relating formal schooling to work. With increased specialization in industry and education and with the lengthening of formal school-

ing, a wide separation has developed between the institutions of work and education. People need to understand the nuances of occupations in order to choose wisely and prepare properly, but increased specialization has reduced the ability and willingness of educators to help youngsters relate school to work.

This is not a new problem to placement officers. For years they have accepted it as their problem and have tried to overcome it by adding career counseling and career guidance classes to the traditional services of interview training, resume preparation, campus job interviews, and local job listing. Placement officers hoped that these services would stimulate and help students to plan their college years so that they would be equipped to compete for jobs after graduation.

The purpose of these services is sound. It recognizes that a career is a developmental phenomenon (Ginzberg, 1972; Super, 1953); that school decisions and experiences influence adult occupational performance (Super, Gotkin, and Kowalski, 1969); and that planning and appropriate preparation increase the possibility of a successful career (Gribbons and Lohnes, 1968; Super, Gotkin, and Kowalski, 1969).

Some students are aided by these extra services, yet the approach is doomed to be inadequate. The number of counselors will never be sufficient to offer the necessary counseling and guidance on the broad scale needed, and several counseling sessions, or even a quarter or semester course, will not provide the ongoing support that many people need to develop their careers during their school years. In essence, the inadequacy is inherent in the assumption that by itself one small part of the education institution can foster the career development of youth. Such development is properly a responsibility of several institutions: family, school, and the community, and will not be achieved until it is recognized that placement officers and counselors can only be part of the solution.

a better way

Fortunately, the responsible institutions are now acknowledging their obligations. The career education movement has reawakened in society the realization that the entire society has a stake in its members' careers and that each institution has a responsibility to help people build their careers (Chamber of Commerce of the United States, 1975). With this realization, it should be possible for placement officers to reorganize their roles so that they can help

educational institutions interface with the business/industry community and restructure their programs so that the career development needs of students can be more surely met.

Research (Gribbons and Lohnes, 1968; Super, Gotkin, and Kowalski, 1969) has strongly suggested that students need accurate, firsthand occupational experiences and opportunities for career planning and problem solving. But common sense and research show that haphazard work experiences can be less than beneficial (Silberman, 1974; Super and Overstreet, 1960). Likewise, common sense tells us that people will not understand their career roles and will not wish to perform them unless they appreciate human history and the purposes of the society in which they labor. Without such understanding they are likely to eschew the drudgery of work out of its human and societal context. Consequently, career development will require a careful balance of work and study.

Colleges are moving quickly to solve the problem of career development through inauguration of cooperative and experiential programs between the work and education community. Placement officers, who maintain ongoing contact with both institutions, can contribute substantially to the success of the new relationship. As colleges provide more experiential and cooperative education experiences, students will need more opportunities to reflect on their career programs and to plan future actions. The placement office can provide the consultation and inservice training that will enable faculty to meet the typical career guidance needs of students and to identify unusual needs requiring referral to a trained counselor.

New programs, of course, are no guarantee of resolution of the problem. Although many of the cooperative education programs are modeled after the long-established programs at Northeastern and Antioch, the particular impacts of such programs are not fully known or understood. Consequently, while we should be grateful that many promising programs are springing up, placement officers, in particular, must insist that the new programs be evaluated and that the feedback from such evaluations be combined with what is already known about career development. In that way, placement counselors can be assured that they will be better able to assist students in their career development now and in the future.

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Representative community councils are needed to serve a coordinating function as independent institutions between schools and the workplace.

community councils as an intermediate institution

paul e. barton

Certain trends in American Society are provoking concern about our capacity for performing the task of socialization of youth into economic adulthood. One proposal for countering these trends is set forth here, namely the Community Education-Work Councils (Wirtz, 1975). Its purpose is to suggest a new *process* rather than a new *program*, a process in which the now disparate elements of community, and institutions isolated one from another, join together to reassert a responsibility to assist the young enter adulthood. An explanation of the councils' membership will be joined with a description of the roles they now play—or are unable to play—in the coming of age in America.

membership

The first nomination for membership is the schools, where we have most often both started *and* ended. The professionalization of education and academization of teachers has tended to isolate schools from the rest of the community, including the employment world.

Educators need access to the representatives of the commu-

nity that can help them, if they are to initiate work-experience programs, develop community internships, establish linkages that would help find jobs for their graduates, allow counselors to bring outside resources to bear on assistance in career choice, and to use the whole of the community in the education of youth. They need that access through a forum in which the rest of the community have decided it is their responsibility to participate, rather than the prevailing situation where the schools are put in a position of asking favors.

At the same time, other representatives of the community and its primary institutions need a means of communicating their thoughts about the larger processes of education. If education prepares the young for entry into the community as adults, then the community ought to be helping define what education is.

Historically, employers have come to see themselves as standing quite apart from the schools, which have been made almost wholly responsible for preparing the future workforce. Employers have complained about the quality of the schools' products, but the lack of active employer interest in how the schools conduct their affairs is at least as great as the educators' isolation from the employment scene. Like different construction companies starting on a single highway from two ends, without talking to each other, they fail to meet in the middle.

It is not proposed here that employer representatives become council members under directives from offices of corporate social conscience. Rather, it will be assumed that the development a young workforce undergoes in the schools and the perceptions and attitudes youth absorb before they enter the personnel offices asking for jobs, affect, sooner or later, what appears on the bottom line.

Labor unions, being an integral part of industry and having a history of participation in efforts to improve the lot of workers through organized bargaining in the work place and lobbying in government, would be needed in the community councils herein proposed. They would have much to gain in a more direct concern with prospective union members as well as with other members of the general community.

Parents, over the years, have likely felt increasingly helpless in carrying out what they still consider to be—and still is—their responsibility to advise their children on occupational choice and to guide them in preparation for work. As economic change has proceeded, the chances of a child carrying on the family craft or busi-

ness has diminished. The same forces have made it harder for any parent to stay knowledgeable about the opportunities available in the local area, let alone the national or international scene. Thus, parents should be represented on the council both to participate in the effort as a whole and to help their youth make the difficult transition.

It would also be desirable to include representatives from major service organizations, because they will contribute to policy, because they can bring volunteer resources to bear, and because they can provide opportunities for local service as part of education-experience arrangements.

Effective citizens of no particular organizational affiliation would be needed, to talk with students about what a particular career is like and how one gets there from here. Youth representatives should be on the council as a reminder to the adult participants that it is youth interests that bring them around the table.

organization

A council could not very well carry out its purposes without a regular executive director and some staff support. Initially, some funding of these positions would facilitate matters greatly. Over the longer run it would be the task of the council to bring community resources to bear out of institutional budgets and volunteer efforts, as well as securing the state and federal grant monies.

While the effort would come from within the community, from twenty to twenty-five communities should be tied together in a network that would enable an interchange among them about successful practice to prevent needless trial and error. While the solutions would be proposed by the council, a competent local person should take responsibility for setting goals and objectives and arranging for assessment of program outcomes. Accurate recording of a community's experience would help transplant the approach.

What is suggested here is a process, not a program. Behind it is a conviction that we have gone too far in asking the schools alone to take the responsibility for providing access to society. A variety of isolated programs are now successfully dealing with one or another aspect of growing up. What is missing is the collaboration among institutions that can make these programs truly effective and sustaining. The leadership for such collaboration will come from different quarters starting where the interest is greatest and the commitment strongest.

There are, of course, a few arrangements that are in the spirit of what is here described, although, to our knowledge, without the fully developed agenda described in *The Boundless Resource* (Wirtz, 1975). An example would be the Hampden County Massachusetts Industry Education Labor Council. An experimental network of from twenty to twenty-five communities would greatly benefit by inclusion of communities that had already come some of the distance.

While the description here has been of the young moving to adulthood, the proposal itself is considered as appropriate for dealing with the transition from work to education, a part of a larger problem of escaping the time traps of life we have set for ourselves: youth for education, the middle years for work, and the last third of life often for nothing. Moreover, the very nature of a proposal to stimulate community initiative is grounded in a belief that there are no single alternatives that the nation must pursue, no single correct answer, and no set of principles applicable to every city, town, and crossroads of so vast a nation. Traffic will have to move down several roads; it has become too great for one to carry.

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England is bringing education and work sectors together through centralized coordination in order to ensure national economic survival.

lessons from the English model of postsecondary education

david o'shea

As the transition from school to work presents major problems for many eighteen- to twenty-two-year-olds in the United States, it may be helpful to explore ways in which another country, in this case England, has attempted to meet this type of issue (Perry, 1975). While solutions developed in England are adapted to the special needs and possibilities of that country, the underlying pattern of the programs adopted there is at least suggestive of ways in which similar problems might be addressed constructively in the United States.

The setting is different in the two countries, but in recent years leaders in both have shown growing concern for the talent wasted by inadequate linkages between school and work. In England this concern is motivated by an urgent need to maximize the level of knowledge and skill in the workforce to ensure national economic survival. Lacking sufficient internal resources to provide for the population, Britain's economy depends on the production of manufactured goods whose cost and quality will overcome competition in world markets. The United States, by contrast, is only

now beginning to enter a period when the problem of balancing the cost of imports against the revenue from exports is having an impact on internal policies. What has attracted the attention of policymakers to the interrelationships between school and work is the emergence of internal social problems associated with blocked mobility and youth unemployment that are sufficiently serious to have provoked urban riots in the 1960s.

A high school education, typically with a liberal arts emphasis, provides youngsters with few marketable skills, thus evoking growing interest in, and increased federal funding for the broadening of vocational, or "career," education within the high school curriculum. Also, for those students who do go on to college and graduate with a liberal arts and sciences background, job opportunities commensurate with their acquired subprofessional status are relatively scarce.

While community colleges and proprietary (private) schools could provide a major alternative to four-year colleges in the postsecondary sector, apparently they are not being very effective in this regard (see Wilms, 1974). An examination of the English experience suggests that certain preconditions have to be met for an effective integration of postsecondary education and job placement, and that these conditions are mostly lacking in the American setting.

conditions associated with school-to-work policies in England

Four major conditions have shaped development of the present pattern of relationships between school and work in England and Wales. The first, as noted already, is the existence of serious threat to national economic survival, a factor that has motivated the development of a national manpower policy. The second condition is centralized coordination and planning of education, industrial training, and the processes of transition between school and work. The third is centralized control of broad scope, covering both secondary and postsecondary technical education, industrial training, and the employment and guidance services that help structure linkages between school and work. Fourth, and last, the status of vocational education has been upgraded in part by its incorporation into a system of further education at the peak of which are degree-granting polytechnic institutes.

Threatened Survival. The first of these conditions is evident in the consensus among leaders of political parties, business, labor,

and education that national survival depends on constant improvements in productivity, a consensus that has found expression over the past fifteen years in a concentrated effort to upgrade manpower training, emphasizing both education prior to entry into the workforce and also subsequent training within industry itself. Not surprisingly, therefore, youth in England find themselves the object of a variety of government-sponsored programs aimed at helping individuals develop intellectual and work skills to the maximum and at placing each person in a career within which he or she is likely to make a productive contribution to the economy.

Government Involvement. Involvement of the national government in the English system finds expression in the second condition underlying the rather comprehensive structure that has been developed to link school and working life. This condition is centralized coordination and planning of postsecondary education. However, although the English system is centralized at the governmental level, sufficient flexibility exists for adaptation to special geographic and industrial needs, as we shall see when considering the system's third supportive condition.

Scope of Governmental Control. The third condition relates to the *scope* of governmental control. In England and Wales, government agencies exert directive influence over all levels of technical education, most training conducted within industry, the employment and guidance services bridging the areas of education and employment, and supplemental training activities required on an ad hoc basis to meet the needs of persons currently lacking marketable skills. Essentially, these varied educational and training activities fall into the area of postsecondary education commonly conceptualized in Europe as *further education*, a term used to differentiate from university-based *higher education*, the other major postsecondary sector (see Scott, 1975, p. 72).

Government agencies most directly involved are the Department of Education and Science and the Manpower Services Commission of the Department of Employment. The commission works through two divisions: the Employment Services Agency (ESA) and the Training Services Agency (TSA). The ESA has charge of the public employment services throughout the country, including career guidance and job placement. The TSA has seven regional offices, each supervising about twenty district offices located in major population centers. An important responsibility of these offices is liaison between employers and prospective employees. Apart from its local office services, at the national level the TSA

allocates funds and coordinates activities among the twenty or more Industrial Training Boards (ITBs), created since 1964. These boards are a particularly interesting development, being constituted separately for each sector of industry and commerce. The board for any given industry has equal representation of employers and labor unions, together with educators and members of relevant government agencies. Each board identifies training needs within its industry and develops programs to meet these needs. Funds are generated by a payroll tax of up to 1 percent, supplemented by direct government grants.

Upgrading Further Education. Related to this governmental focus on postsecondary training is the fourth condition of the English system. This condition is an upgrading of the status of further education, a field traditionally held in low esteem relative to the prestigious area of higher education, which is the channel through which the children of the more prosperous families normally have moved in preparation for their adult careers. The relative status of further education has been improved by placing at its peak regional polytechnic institutes, each of which grants university level degrees. Sequentially beneath the polytechnics, in a hierarchy that allows a good deal of overlap between the programs offered in each level of institution, come regional colleges, colleges of further education that provide training for a day-a-week release students from industry, and local technical colleges, many of which also provide secondary-level education in vocational programs for youngsters aged eleven through sixteen (see Fleischmann Report, 1972, p. 84).

The role of this extensive range of educational institutions in mediating between secondary schooling and the job market is reinforced by several initiatives. One is an emphasis on providing a full range of sandwich and part-time courses for persons already employed, a function that allows the educational institutions to complement and work with in-service training programs organized by the various ITBs (for an example, see Shapiro, 1973, pp. 56-57). A second initiative is that policies governing staff recruitment in polytechnics and other further education institutions emphasize the hiring of part-time personnel who are employed in jobs related to the subjects that they teach. (For similar developments in China, see Hawkins' paper in this monograph.)

Overall, therefore, England's experience in addressing the problem of transition from school to work suggests four conditions that make for a viable approach. These conditions, in turn, suggest four steps that should be taken to deal with the same problem in the United States.

steps that might be taken in the United States

The four major steps suggested by the English experience, elements of which already are emerging in this country are (1) the creation of a national manpower planning agency at the federal level; (2) the creation of formal structures to bring employers and labor leaders in the major occupational sectors of the economy into working relationships with educators and governmental representatives to determine pre-entry and in-service training needs for the different careers, and to supervise the provision of such training; (3) state-level coordination of all further education, whether conducted in schools, in work settings, or in community facilities; and (4) upgrading of the status of further education relative to higher education.

manpower planning agency

At present at the undergraduate college level in the United States, most educational programs designed to equip students with job entry skills for specific careers are based in community colleges. In 1968 these colleges had one third of their 1,800,000 students in vocational courses. In addition, the same year there were "1,350,000 students (reduced to full-time equivalents) in proprietary schools" (Scott, 1975, p. 61). However, as Wilms (1974) has shown, the actual job positions obtained by graduates of these vocational programs, whether public or private, often are only indirectly related to the training received, a situation indicative of very poor linkages between postsecondary vocational training and occupational world. One step that could help improve linkages would be creation of a manpower planning agency external to the educational institutions, with strong roots in the occupational structure. Such an agency could assemble, analyze, and disseminate data to guide educational planning and to help students themselves make informed choices among training programs offered. In fact, the basis for such an agency exists now in the National Commission for Manpower Policy. However, given this country's size, to be effective a manpower planning agency would have to be divided among regional or even state-level offices. In addition, developments in England indicate the value of supplementing the work of manpower planners in linking school and work by the creation of formal structures to bring employers and educators into close working relationships.

structures to link employers and labor leaders with educators

In discussing the gap between school and work, the Manpower Report of the President (U.S. Department of Labor, 1968) cites the high rate of both unemployment and underemployment among youth in the United States, rates that are the highest for industrialized nations overall. As noted by Shapiro (1973, p. 15), the report proposed a number of remedial approaches to this problem, "of which the first was improvement in the educational system and great expansion of cooperative education programs to better prepare young people." Cooperative programs require that educators work closely with both employers and labor leaders within the occupational structure, and a model for such joint programing is offered by the English Industrial Training Boards (see Shapiro, 1973). Similar boards might well be established in the United States though again at the state rather than national level. Their importance is obvious, as unless employers are concerned about ensuring pre-entry vocational training and the continuous upgrading of the skills of their employees, most of what the educational system tries to achieve in this regard is bound to fail over the long term. To help integrate the employment and educational sectors, a state-wide agency for further education appears desirable.

state agency for further education

A third step that appears necessary in order to better structure linkages between school and work is the creation of an agency in each state, with an appropriate counterpart structure at the federal level, to provide planning services, financial support, and even regulations, where needed, over the entire field of further education, public and private. The major objective of such an agency, a basis for which now exists in the postsecondary education commissions being established by federal funds in each state, would be to encourage development of a wide range of further education programs, both within educational institutions and within workplaces. Prospective clients would include secondary school dropouts, workers requiring improved skills within their present jobs, or for transfer to better ones, and persons whose existing skills have been made obsolete by technological change or other factors. The potential scope of a state further education agency is suggested by the findings of an Office of Education survey of public and private postsecondary schools with occupational programs. As reported by

Scott (1975, p. 49) the survey found that there were, in 1971, 8182 postsecondary schools that offered occupational programs. This total was made up of 1027 technical and vocational schools, 306 technical institutes, 967 business and commercial schools, 1481 cosmetology schools, 1345 flight schools, 597 trade schools, 114 correspondence schools, 1134 hospital schools, 782 junior and community colleges (about four out of five of all community colleges), 384 colleges (colleges that offered programs to the level of a bachelor's degree), and 45 unclassified schools. Of the total of 8182 schools offering occupational programs, 1756 were public colleges, 5036 were proprietary (that is, profit-making) schools, 970 were independent nonprofit schools, and 420 were affiliated to a religious group. Almost 3000 of the total number of schools were accredited by a professional accrediting association or agency approved by the Office of Education. About one in eight was able to meet the stiffer standards of one of the six regional accrediting associations. About half of the total of 8182 were eligible to participate in the federal insured student loan program, and more than three quarters were eligible to participate in the Veterans Administration program of student assistance.

Extensive as this listing is, other components of any overall system of further education are not yet covered. These, as Scott (1975, p. 49) reminds us, include "museums, libraries, schools, and other community agencies that offer courses which in the judgment of the Office of Education are not vocational, on-the-job training in industry, and formal apprenticeship programs—all of which are important ingredients of further education." In creating a state-level agency for further education, attention must be paid to the problem of the low status of further education's major component, vocational education.

upgrading the status of vocational and further education

In England the status issue has been addressed in part by placing degree-granting polytechnics at the peak of the further education sector. Ways to approach the same problem in the United States currently are under debate. The Carnegie Commission for Higher Education (1973) has come out squarely for creating a single state agency for postsecondary education with two divisions—higher education and further education. Other approaches have been proposed by the Ontario Commission on Postsecondary Education and also by the New York State Board of Regents.

The Ontario group (Commission on Postsecondary Education in Ontario, 1973), sometimes called the Wright Commission, proposes that there should be but one agency for postsecondary education, without internal subdivisions. Within a unified command it is hoped that the status issue could be resolved. To help in this, the Commission recommends that the statewide system incorporate the principle of *transferability* "allowing students as much freedom as possible to transfer from one institution to another and from one program to another" (Scott, 1975, p. 110).

The Ontario Commission approach finds support from proposals put forward by the Regents of New York (1972). Among their proposals for educational reform is the recommendation that "formal borderlines between collegiate and noncollegiate postsecondary education be erased through the development of a comprehensive system of postsecondary education that involves no distinction in status" (Scott, 1975, p. 103).

There are grounds for pessimism, however, regarding the effectiveness of unitary systems of postsecondary education in resolving the status problems of vocational education and of further education generally. While advocates of the single agency approach place their hopes in a "comprehensive" system, we know only too well the low status accorded vocational education within comprehensive high schools. If this example is not sufficiently convincing, there is the similar experience of community colleges to draw on. Many of them suffer from "institutional schizophrenia, not sure whether they belong to further or higher education" (Scott, 1975, p. 62). One result of the status bias in favor of higher education is that it appears to encourage students to delay too long in making a decision to discontinue with an academically oriented program. Of the 1,200,000 community college students enrolled in academic programs in the late 1960s, programs that are career-relevant primarily for those students who transfer to four-year institutions, only half actually made such transfers (Scott, 1975, p. 61), leaving the remaining half in a sort of educational limbo so far as a marketable skill is concerned.

While using community colleges to gradually "cool out" overly high aspirations held by many students, as Clark (1960) describes the process, may be a politically astute response to public pressures for equal access to higher education, educationally the process is indefensible at such a late stage in students' careers, and economically it is wasteful, both to individual students and to society. It is a process forced on colleges by the inequality of status accorded vocational education.

A Dual System. Given the difficulties inherent in a *unitary* postsecondary system with regard to equalizing the status of vocationally oriented further education, the Carnegie Commission (1973) proposal for a *dual* system deserves careful attention. It conforms, of course, to the English pattern and has its own limitations. However, it does offer a way of ensuring that a governmental agency is focusing its full attention on the further education sector, leaving higher education to a separate entity. Such a dual structure also provides public visibility for the resources being allocated to each sector. While a unitary system does provide all students an equal opportunity to move as far along the track within higher education as they can, by focusing postsecondary resources in academic programs and professional schools such a system has a marked tendency to abandon the 50 percent or more who drop by the wayside, having been convinced that they could not make the grade academically. Among those who drop out of college and who never actually enter are many persons of a practical bent, who should be given the opportunity to develop their applied skills within a system committed as much to equality of status between sectors of postsecondary education as it is to providing for equality of opportunity within each sector.

To upgrade the status of further education relative to higher education, rather than create degree granting polytechnics as in England, an alternative would be to encourage colleges of engineering and other directly vocational programs in existing four year colleges to relocate within the further education sector of postsecondary education, thus becoming the apex of this sector. Such an initiative not only would substantially improve the status of further education, including vocationally oriented programs in community colleges, but would also lay the groundwork for major reforms of college level training within higher education. As Krauss argues: "The present baccalaureate which consists of an unhappy mixture of liberal arts and vocationalism should be modified and a three year program for the B.A. should be adequate. . . . The three years should be devoted almost entirely to the liberal arts, not to general education or, on the other hand, to premature specialization" (1976, p. 174).

conclusion

Adaptation of the English approach to the problem of school-to-work transition to the different historical, socioeconomic, and geographic context of the United States obviously requires

careful thought and a period of experimentation. However, although the four basic conditions proposed in this paper are lacking in *developed form within the United States, they are present* in embryo. Given appropriate leadership within one state, or preferably at the federal level, these existing beginnings could be nurtured into an effective program, an outcome that would result in major reforms of the structure of postsecondary education.

Within a structure of postsecondary education divided between higher and further education, it should be possible to give community colleges two distinct personalities rather than allowing the present split within one to continue. Each college could be formally separated into two distinct divisions, and, by ensuring improved status for vocational programs within the further education division, the pressure on entering students to opt for transfer programs in the higher education division hopefully would be substantially reduced. Transfer programs would be left for students who have both the motivation and the capability to continue through four years of college and, if necessary, through graduate school.

Further, the vocational programs of community colleges could be expanded to allow those now offered in junior and senior years of high school to be incorporated into the overall field of postsecondary further education. High school facilities seldom are adequate for such programs, and it makes sense to allow vocationally oriented students to leave high school at the end of their sophomore year and transfer to community colleges or skill centers, unless of course there are technical high schools available. Regular high schools should be left to function as college preparatory rather than terminal institutions, and in fact it is just for such a preparatory role that most now are designed (see Scott, 1975, pp. 47-48; Trow, 1961).

In conclusion, therefore, it is apparent that a solution to the problem of transition from school to work requires much more than changes at the level of the community college. While changes at this level certainly are necessary, they must be set within an overall reform of the entire system of postsecondary education in order to be effective. The component elements for such a reform already are emerging. Should these elements be encouraged to develop and ultimately eventuate in a new postsecondary structure, community colleges will have a key role both in the higher education and further education sectors.

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Techniques of the People's Republic of China in bridging education and work involve integrating the curriculum with society at large.

school-to-work transition in China

john n. hawkins

One of the most dramatic Asian examples of successfully implementing access to the workplace and a smooth transition from the precollegiate level of schooling has taken place in the People's Republic of China. Although the transferability of China's experience to a social, political, and economic context such as that of the United States is debatable, considerable interest in China's educational programs has nevertheless been aroused and is currently capturing the attention of American educators. China's experience especially in the area of transition from school to work is providing a model that many other developing and developed nations are attempting to emulate.

The Chinese have discouraged and literally made impossible a lock-step schooling cycle that allows students to move directly from the precollegiate level to a conventional collegiate curriculum. Students must engage in a work-study moratorium of at least two years' duration to prepare them either for advanced technical training in the labor force or for admission to colleges and universities.

Although community colleges are not known as such by name, structures are evident that effectively facilitate postsecondary training and access to the workforce. The primary feature of

these structures is the thorough integration of the curriculum and learning experience in society at large. While the majority of these programs are technically oriented, the Chinese still consider it important to provide for liberal arts training which nevertheless is not divorced from major political and economic institutions.

Since the Cultural Revolution (1966 to 1968), enrollment of liberal arts students in community-based educational programs has continued, and additional facilities in the social setting have enabled the students to work in a technical capacity while at the same time perfecting their skills in their chosen field. To overcome the traditional divorce of the arts from actual economic production in society, the Chinese have adopted the following slogan to encourage development of liberal arts education: "The departments of arts should take all society as their factory." In practice, students spend roughly one third of their time applying their skills in the social sciences to solve practical problems in factories, on farms, in health stations, and in community organizations. The remaining two thirds of study time is devoted to more conventional academic study including but not dominated by lectures, self-study, and impromptu discussion groups. As students take part in social activities, periodic discussions are held to present a theoretical framework for this method of study. One important result of this program is that students who desire to focus their study in the arts and humanities do so in a manner that links them directly to employing political and economic institutions. In addition, they are required to learn a second skill that is usually related to a technical field. On completion of this course of study, they have acquired employer contacts in their area and at least two skills to ease the transition from school to the workplace.

polytechnical education

The most far-reaching innovations in postsecondary, community-based training, however, are occurring in the field of polytechnical education. Prior to 1966 China had to rely for technical expertise on the limited number of skilled technicians produced each year by the few standard polytechnical universities and colleges (for example, Tsinghua University in Peking and T'ungehi University in Shanghai). Economic and social development was hindered by the fact that too few technicians and engineers were graduating and those who entered the workforce were often underemployed.

The primary model for community-based worker and peasant short-term colleges is the Shanghai Machine Tools Plant July 21 Workers' College. In September 1968, the spare-time middle school of this large Shanghai factory (employing 6000 workers) was transformed into a technical college to train middle- and advanced-level technicians from among its own work force. A new spare-time preparatory middle school has now been established to assume the function of screening students into the Workers' College. New students are selected from among plant workers with at least twelve years' experience. Other considerations include performance at the spare-time school and political and cultural level. The first class of fifty-two graduated in 1971 after studying for two years and ten months. It is expected that the second class will be larger and graduate sooner.

The major difference between a graduate of this kind of technical school and one of the standard polytechnical universities is that the worker-technician is trained more specifically in terms of the needs of his or her factory and is immediately employable. (For further discussion of the import of immediate employability, see La Belle's paper in this volume). The curriculum consists of five main areas: politics, labor, education, military affairs, and professional subjects. The last area comprises the bulk of study (80 percent) and includes a foreign language (English), mathematics, mechanical drawing, hydraulics, electrical engineering, and designing techniques. Examinations consist of actual design experiences. A final exam requires the design of one of the more complicated machines from drawing board to production line. While some textbooks are taken from the regular universities, the emphasis is on writing one's own instructional material. Instructors are drawn from among the technicians already in the plant and professors come periodically from nearby major polytechnical universities, volunteering their time.

Worker and peasant colleges such as the Shanghai Machine Tools Plant College have been established throughout China's industrial sector. Because the Chinese have made a major effort to decentralize industry by spreading light and medium industry to the rural areas, peasants are also benefiting from this alternative form of higher education. Chinese authorities are hoping that the increase in middle-level technical personnel drawn primarily from the local communities will assure future economic development and facilitate employment opportunities for postsecondary students.

conclusion

In sum, therefore, the problem of school-to-work transition has been ameliorated in the People's Republic of China by (1) instituting a work-study moratorium of at least two years between precollegiate and collegiate schooling; (2) directing the focus of liberal arts education toward the solution of practical problems, and thus ensuring that students spend time with employers and workers in places of work; and (3) developing community-based technical colleges, in which further education and training specific to technical needs of the community is received. Although, as previously mentioned, the transferability of China's experience to the American context is problematic, it is interesting to note that China has attempted to solve the problem of school-to-work transition by altering at the societal level the areas of learning and working.

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Bringing education and work sectors in Latin America together has required centralized coordination of industry with government.

gaining access to the world of work in Latin America

thomas j. labelle

Because there are relatively few community-college-type institutions in Latin America, the major responsibility for assisting youth in gaining access to the world of work rests with secondary level technical/vocational schools. Probably the most innovative technical/vocational institution to emerge in Latin America, and one that has been employed as a model in several countries of the region, was initiated in Brazil in 1942. The institution is known as SENAI (National Apprenticeship Service of Industrial Training) and involves the collaboration of industry and government in the training of the industrial labor force.

mandatory cooperation

Because the industrialists apparently did not agree that it was appropriate for them to become involved in educational programs traditionally administered and funded by the government, and as there apparently did not exist any organized pressures from the working-class population for such educational services, industrialists

did not cooperate voluntarily. The subsequent legislation creating SENAI, however, mandated such cooperation through a tax paid by employers on the total worker payroll. It is this aspect of the program, involving the maintenance of the educational programs through financial contributions of industrial employers, that establishes the SENAI effort as an innovative program in Latin America.

SENAI is designed to assist industry in training new skilled workers, in the advanced training of skilled workers and master craftsmen, and in the on-the-job training of both skilled and semi-skilled workers as well as supervisors and technicians (Abreu, 1968). In 1971 SENAI was supported by a 1 percent tax on the monthly payroll of industrial firms employing more than 100 people. In that year it was: (1) sponsoring thirteen industrial colleges, of which six were maintained by private industry, that enrolled 2400 students; (2) offering apprenticeship training for youth under 18 years of age, enrolling 43,000 students in SENAI schools and about 50,000 on the job; (3) offering skills training, specialization and upgrading of adults, enrolling 145,000 in SENAI schools and 101,000 on the job; and (4) working with several other agencies in training and upgrading industrial skills. In 1971, SENAI graduated 12,500 apprentices and trained or upgraded 154,000 adults and 330 technicians (United States Agency for International Development [USAID], 1972).

On the basis of the SENAI experience in Brazil, centralized programs of a similar nature have been initiated during the last two decades in, among others, SENA in Colombia, INCE in Venezuela, SCT in Chile, SENATI in Peru, CONET in Argentina (Pan American Union, 1965; Abreu, 1968) and most recently SECAP in Ecuador. Some of these agencies have expanded their services to include basic education, agricultural technical assistance, and literacy programs. All vary in terms of the administrative relationships extant between the government and industry and in the amount and conditions of the tax levied to support the program (for example, see Paulston, 1971; Diaz, 1968). In terms of programs, for example, SENA in Colombia recently inaugurated a "popular professional preparation" program in both rural and urban areas of the country. Mobile units in the rural areas are directed at training individuals for the development of community enterprises, cooperatives, and entrepreneurs whereas in the urban areas the program is designed to train both the unemployed and underemployed. Also in the last few years some SENAI-type institutions have collaborated with the armed forces in their respective countries to train conscripts.

Usually affecting some 10 to 25 percent of the inductees, the programs offer instruction and counseling in the last few months of service. Such programs are often supported by the United States Agency for International Development (USAID) and each enrolls up to 4000 individuals (Hall, 1970).

commercial training

An extension of the industrial collaboration with the education model of SENAI was created in Brazil in 1946. Known as SENAC, or the National Service of Commercial Training, it is subordinate to the National Confederation of Commerce in Brazil and is characterized by a financial structure similar to that of SENAI. The training in SENAC is aimed at the commercial sector of the economy and includes basic subject matter areas like secretarial and business education, typing, and beautician training along with more peripheral areas like coffee tasting. In 1971, SENAC operated seventy-five schools and centers as well as carried out programs in conjunction with various government agencies such as the Brazilian armed forces. Some 92,000 individuals completed programs in 1971 (USAID, 1972).

While the Cuban programs use primarily moral and social incentives such as personal satisfaction and community betterment to encourage and foster participation in these education and work programs (Gillette, 1972), the majority of the technical/vocational programs in Latin America, primarily because of a lack of a correspondingly strong ideological base equal to that which exists in Cuba, must rely on more traditional socioeconomic incentives. The major source of such incentives is jobs. As McGinn comments, little value can be attached to training per se until opportunities exist for the application of what is learned (McGinn, 1971).

conclusion

Brazil's SENAI apprenticeship model appears to provide one viable relationship between education and job placement in Latin America. By paying the apprentice while he or she is learning a trade, industry channels the apprentice into a particular position through a combination of classroom and on-the-job experience. Programs that do not have such a relationship with employers often find that irrespective of how good the training experience, graduates in many countries seldom can find appropriate employment.

Although the transferability of these Latin American efforts to solve the school-to-work transition problem to the United States context is problematic, the centralized pattern of involving both industry and government in organizing and coordinating the technical training of workers provides an interesting model for those concerned with similar issues in the United States.

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The Synanon Game helps to integrate the physical proximity of education and work within a total planned community.

the transition from school to work in Synanon

brooks carder

Synanon Foundation represents what is probably the most extensive experiment in education existing in America today. Including 1500 members living in five California facilities, the major purposes of the foundation are educational in nature. While it originally focused on the reeducation of character-disordered adults, the community has expanded its scope. Synanon is now a complete community that provides most services necessary to maintain itself, such as automotive repair, plumbing, carpentry, laundry, and food services. The community operates businesses that employ clerks, accountants, salesmen, managers, and so forth. Thus, within the community are a very wide range of opportunities for career training and eventual employment.

Since Synanon is a total community, it provides unique possibilities for experimentation in the transition of youth from the school to the workplace. Synanon has developed its own schools and attacked the problem of educating its youth. Both the school and the workplace are parts of the larger Synanon educational community. Thus, in Synanon we can attack the transition problem as a whole, rather than focusing our interventions on only the school, only the workplace, or on some other single aspect of the

problem. What follows is an attempt to describe Synanon's current approach to this problem of transition.

the Synanon community

Synanon Foundation was organized in Santa Monica, California, in 1958 by Charles E. Dederich as the first self-help, therapeutic community for the rehabilitation of drug addicts and character disorders.

Synanon currently operates five facilities across California and a small facility in Chicago, along with affiliated organizations in Detroit and New York. By far the largest facility is in Tomales Bay, where three adjacent pieces of property totaling about 3200 acres house over 900 residents.

The population of Synanon has diversified considerably in recent years. Since 1968 a number of "squares," persons with no background of character disorder, have entered Synanon in order to assist in the development of the community and to enjoy the benefits of the communal lifestyle. The "squares" now make up about 30 percent of Synanon's adult population.

Synanon's original approach to the rehabilitation of character disordered people was to view the problem as one of reeducation. The character-disordered person was viewed as an individual who had failed to learn to function appropriately in society. Synanon's objective was to reorient the character disorder in the direction of appropriate behavior. In seeking to achieve this objective Synanon developed some extremely powerful educational techniques. Most notable of these is the Synanon Game, a leaderless group encounter situation in which ten to fifteen people sit in an open circle and confront each other in whatever language style and about whatever issues they choose. These Games may last from one hour to forty-eight hours, although most residents play about two two-and-one-half-hour Games each week. In the Game the newer members of Synanon receive social disapproval for their inappropriate behavior and are reeducated in the direction of a more appropriate lifestyle. With individuals who have been in Synanon for a longer time the Game provides a forum for free discussions of a wide range of both community and personal issues.

In addition to the Game, the Synanon community provides an environment in which certain values, values usually lacking in character disorders, are firmly held by the community and made very clear to the newer people. These values include hard work, honesty, and self-reliance.

As couples in Synanon married and had children, and as "square" families entered, the need for child care and education developed. In 1967 the Synanon School was founded to meet this need. The school currently serves about 180 children of Synanon residents. Its chief tools are the Synanon Game and the rather simple and clear-cut value system described above. While many of the techniques of instruction have been borrowed from other educational situations, the program that has developed from the Synanon educational philosophy is unique.

From the age of six months children are reared communally and are cared for by those members of the community that have chosen this occupation. By the age of four, Synanon children have received explicit training in the values of the Synanon community. Children from four to seven years of age are taught to do their "basics," including making their beds, cleaning their rooms, and taking care of their clothing. Even at this age youngsters receive training in the value of hard work and are expected to have high standards of performance. Up to the age of about ten, children have an increasing responsibility for maintaining their own environment. They keep their dorms and classrooms clean, make minor repairs, service their bicycles, launder their own clothes, and so on. By the age of ten, most Synanon children are able to work hard and independently to accomplish a variety of tasks necessary for their own maintenance. Of course, they also receive more conventional education in reading, writing, and arithmetic in daily classes.

It is important to note, however, that Synanon makes no distinction between so-called academic education and the other types of training that are given to young persons. All are fundamental to the education of Synanon children. It is just as important that a child learn good work habits and high standards of accomplishment as it is that the youngster learn to read and cipher.

At the age of ten, the work situation moves outside of the child's immediate environment. Children from ten to twelve years of age not only perform those tasks required for their own maintenance but begin to take on productive jobs in the community. At this point they participate mainly in work crews that do simple tasks of cleaning and maintenance in the community under the supervision of members of the school staff. This type of work takes from five to ten hours of the child's week.

By the age of thirteen, youngsters make the transition from working under the supervision of school staff to working under the

supervision of others in the community. By this age youngsters serve in "mini-apprenticeships" in fields such as automotive mechanics, animal husbandry, agriculture, carpentry, and plumbing. They are employed about twelve hours a week and are rotated from one job to another at three-month intervals so that they have an opportunity to sample a range of occupations. This vocational training continues to parallel their formal academic training.

At age sixteen the youth graduates from the Synanon High School. At this point his or her identification is more with the workplace than with the school although this does not mark the end of formal education. The youngster assumes the normal work schedule, developed several years ago in Synanon, referred to as the "Cube." On such a schedule the person works for six days, has a day off, works for five more days, and then has nine days off. Sunday is a "Sabbath" and no one works on that day unless it is an absolute necessity for the maintenance of the community.

During the "motion" or work part of the Cube cycle Synanon High School graduates serve as apprentices in some Synanon department. In the growth part of the Cube cycle, when they have nine consecutive days off, youth are free to pursue further academic education. To accomplish this Synanon is developing a Synanon College, which presently offers a wide variety of courses to members of the Synanon community.

the role of the Synanon Game

The Synanon Game has important functions at all levels of the educational process. The children begin to play short Synanon Games at the age of four. The Games help alleviate the tension between children and institute a form of communication between students and teachers that is not possible in other settings. The Game is especially important in that not only can the teachers criticize the performance of the students, but the students can also criticize the performance of the teachers. Thus it provides an important feedback device that is lacking in most educational settings. As the child moves from the school setting to the workplace, an increasing number of individuals must maintain effective communication to facilitate the educational process. This goal can be readily accomplished by arranging Synanon Games in which school personnel, students, and employers all participate.

By age sixteen, a youth in Synanon has virtually completed the transition from school to the workplace. This transition has been accomplished in a series of gradual steps beginning as early as four years of age. Synanon School is explicitly designed to foster an efficient transition from childhood to the adult society. Synanon is uniquely able to accomplish this goal because both the school and the workplace are integral parts of a single community and not separate institutions competing for limited resources within a much more loosely organized structure.

The school-to-work transition is further eased because Synanon has broken with the tradition of maintaining a dichotomy between vocational education and academic education. Academic and vocational training are carefully integrated and, symbolically, even the physical facilities for vocational and academic training are located next to each other. Adults in Synanon generally achieve prestige through the excellence of how they perform their work, not from the kind of work they perform. Thus a fine carpenter is as highly valued by the community as an excellent teacher. By the same token vocational education is an integral part of the education of every youngster in Synanon, whether he or she is aspiring to a job on the top management of Synanon or a job on the construction crew. The decision to specialize in something more relevant to vocational training or something more relevant to traditional academic training is made at a relatively late point. Up to that point both kinds of education are provided.

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Special problems result from the diverse goals and heterogeneity of the community college faculty and student body and require overcoming staff resistance to innovation.

the impact of community college structure on the school-to-work transition

janet lieberman

What exists in the structure of the community college, itself, that makes the desired transition from school-to-work so difficult? One problem is the multiplicity and the lack of clarity of goals for the community college and for its student body. In New York City, approximately 50 percent of the student body use the two-year program to acquire a terminal vocational degree; another 50 percent see it as the basic element in an academic transfer program to a four-year college.

A variable that interacts with the multiplicity of goals of an institution is the diversity in individual abilities and motivation among the student population. Even if the institution evolves clear goals for itself, the students' objectives do not always mesh. The achieved level of entrance abilities in the basic skills ranges from the fourth-grade to above the thirteenth-grade level, and the individual study skills competencies cover the same spectrum.

In addition to the multiplicity of goals and heterogeneity of the student population, the nature of recruitment and advancement

of faculty restricts community colleges' contribution to the solution of the school-to-work transition problem. For example, faculty in most colleges have little training in integrating work experience and classroom learning. Few have worked outside a college setting; many come directly from the graduate school classroom to the community college teaching role. Furthermore, faculty incentives—"publish or perish," committee and administrative assignments, promotion and tenure criteria—almost ensure that faculty members will not acquire a greater understanding of the world of work once they obtain their faculty position. How then can these faculty members know how to integrate the classroom learning with the activities of the workplace—an integration that must be achieved in order to solve the school-to-work transition problem?

problems and solutions

The difficulties in facilitating the school-to-work transition of eighteen- to twenty-two-year-olds posed by the multiplicity of goals and the heterogeneity of the student population in the community college can be eased by adopting a cooperative education model. The college must build an internal organization that helps to integrate work and study. Two branches of City University of New York, La Guardia Community College and Staten Island Community College, have developed interesting approaches to combining work and study. All students (terminal degree and transfer) participate in work internship along with the normal academic course work. Antioch and Northeastern have a long history in these endeavors. Each program is consistent with its population and student needs.

Resistance to Change. In attempting to promote a successful school-to-work transition through the implementation of a cooperative education program, certain problems arise, not the least of which is lack of adequate experience and preparation for—as well as outright resistance to—change among community college faculty. The training of faculty and incentives for their participation in cooperative education programs is an important part of the solution to the school-to-work transition problem.

Much has been written about the general resistance of staff to innovation. The popular image of the ivory-tower professor epitomizes the isolated functioning of the average faculty member. Reasons for resistance to change may be rooted in the general insecurity of faculty. Faculty believe that teaching should not be restricted

by outside interference. To protect their work space from interference, instructors have set up both informal and formal organizations that maximize their control.

An institution wishing to introduce a cooperative education program has two options: either to recruit new faculty who have positive attitudes toward the desired program or to change the existing attitudes of faculty opposed to innovation. It is admittedly easier to select the first option.

Deans and administrators responsible for hiring new faculty can design simple interview techniques to determine a potential faculty applicant's interest in cooperative education. It is frequently a good idea to select faculty whose histories have included more than straight academic training. The experience at La Guardia suggests that selecting faculty who have a personal commitment to the idea of cooperative education was extremely helpful to the success of the program. There is no dearth of candidates who are schooled in both the work and the academic areas, but obviously the sources of recruitment for these candidates are not primarily at the prestige institutions. Graduates of schools where cooperative programs exist often have valuable contributions to make.

If the program is to be superimposed, the administration will be well advised to move slowly and develop grass-roots support at the faculty level. Prior to launching a program, key faculty members can visit successful programs and talk to colleagues. One method is to encourage a teacher who wants to experiment to find a few colleagues who are interested. The newly formed group supports its members and protects it from criticism. Administrators provide the funds and the innovation moves upward through the institution. The process is delicate: administrators cannot legislate acceptance; the faculty member needs encouragement and substantial information to promote the idea. The closer the practice coincides with the teacher's own value system, the quicker acceptance will come. Part of the restructuring includes in-service training. There is virtually no preservice training for programs of the kind described.

Evidence on innovation emphasizes the need for faculty to feel secure if change is to occur. Therefore the aim of the training is to support the instructors when they engage in risk-taking behavior. Try taking your faculty on a helicopter ride or underwater, to provoke seeing the world from another viewpoint. At the same time, plan an outing to the neighborhoods where students live; provide a dialogue with parents and community representatives; arrange for

prospective employers to meet with faculty. Such suggestions are informal and inexpensive. A more formalized way of broadening faculty horizons is the concept of faculty exchange, where college staff work in the cooperative placement setting (hospital, clinic, personnel office, publisher, corporation) and the potential employer comes to teach. Facilitating reciprocity between academic and work setting promotes empathy and a clarification of goals that benefits students, faculty, and employers. Mutual experience and interchange can add immeasurably to the integration of the academic and the cooperative experience.

Academic "Discipline." An even more difficult area of retraining is to reduce the academic "discipline" orientation. Attitudes toward vocationally related experiences are generally negative. Often, instructors are not skilled in helping students benefit from their work experience. Faculty participating in community college cooperative education programs need to understand the relationship between school performance and job behaviors. While it may help faculty-student relationships to be on a first-name basis, the student also needs to understand the authority structure on the job. Coming late, missing class, not keeping appointments are poor preparation for external success. We do the student no favor by misrepresenting the real world. Students must learn to accept the consequences and responsibility for their behavior.

Other techniques can also help integrate work and education. Simulation of work experiences of an office or a factory assembly line can be very helpful. A team approach to training can be a desirable in-service exercise to assist students in understanding the ecology of work and the impact on the worker.

Incentive System. Finally, administrators must expand the merit and incentive system to include promotion for innovation. If and when a college has a clear goal to promote a program, the innovative efforts to achieve that goal warrant appropriate rewards; otherwise, faculty energy will be diverted to personal pursuits. Only by integrating the incentives into the existing system will new practices be fostered. Establishing a good cooperative education program is possible. It is difficult and not the only approach to the problem of easing the school-to-work transition, but it is feasible and the rewards for students and faculty are worth the effort.

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The diffuse nature of occupational preparation is one reason why two-year colleges play a relatively small role in the preparation of workers.

contributions of formal and informal occupational preparation

marcia freedman

How do American workers acquire their occupational skills? One official list includes: vocational education; apprenticeship; employer training; armed forces training; federal manpower programs; home-study courses; junior colleges or community colleges; and college and university training. The variety of training routes, especially for workers with less than four years of college, is astounding. If the official data are to be believed, the majority of employed persons without college degrees have never completed a formal training program. The 1970 census (U.S. Bureau of the Census, 1973) reported that 30 percent had completed a program. In an earlier U.S. Department of Labor (1968) survey, the majority of workers reported that they had picked up their occupational skills informally on the job.

In this nation devoted to data gathering, information of a precise nature on sources of training is fragmentary and of poor quality. This is not because efforts have not been made, but rather that the variety of routes into occupations, the mobility of the workforce, both geographically and occupationally, and above all the localism that characterizes life in the United States, make it

very difficult even to find suitable categories for assessing skill acquisition. First of all, there are a great many occupations for which specific vocational preparation is minimal. For instance, on the automobile or electronics assembly line, very little learning is required. A person who takes such a job, as well as his or her employer, will know within thirty days whether he or she can perform adequately under difficult conditions. Here, adequacy is more a matter of tolerating the work and becoming conditioned to performing repetitive tasks day after day than it is a matter of acquiring skill.

All jobs require a degree of socialization, in the sense that the new worker has to become accustomed to the habits, mores, and routines of the workplace and the work groups. Beyond that, many jobs require specific occupational skills. A quick review of typical patterns in industries and occupations should offer some notion of the complexities and even contradictions in the acquisition of training.

formal preparation in various occupational clusters

Preparation for the traditional professions is now almost entirely a function of colleges and universities in undergraduate, graduate, and professional schools. Among the other semiprofessional, technical, and kindred occupations, those in the health industry are most likely to have formal pre-employment training available.

Technicians. In the nonhealth technical occupations, there has been some tendency for formal training programs to increase in the engineering specialties. These specialties illustrate how certain interstitial activities take on more formal boundaries, both with respect to the content of the work and the typical training. Technicians formerly were recruited from the ranks of blue-collar workers, particularly machinists and tool and die makers. On the other hand, a number of engineers, both those with college degrees and those without, have always performed what are essentially technicians' tasks. The growth of formal curricula for the training of engineering technicians in effect limited the upward mobility of certain blue-collar workers, and may very well have intensified the job dissatisfaction of graduate engineers who are underutilized compared to workers with two years of technical training.

Managers and Administrators. Training reported by managers and administrators is probably the most difficult of all to assess, since a great many in this category began their work lives in other

occupations. In the 1970 census, 1.6 million noncollege managers and administrators, or a third of the noncollege total in this occupational category, reported that they had completed a specific vocational training program (U.S. Bureau of Census, 1973). The so-called distributive education offerings of vocational education probably made some contribution to this total among managers in retail trade. Other detailed occupations that show a relatively high proportion of formal training are funeral directors; inspectors in local, state, and federal government; and managers in various business services.

Sales Workers. Among sales workers, about 27 percent reported specific training; here the occupations most heavily involved are real estate agents and brokers, insurance agents and brokers, stock and bond salesmen, and nonretail trade salespersons who frequently have considerable knowledge of the product, either from formal training or experience in the production aspects of the industry in which they are employed.

Clerical Workers. Among clerical workers, about 32 percent reported specific training but here the picture is much clearer if one considers office and nonoffice clericals separately. Where the operation of an office machine is involved, one can be reasonably certain that the operator received some kind of formalized instruction, although not necessarily at a level that would qualify as a "program." On the other hand, a good many clerical occupations require only exposure to the job. In this category are stock clerks, shipping clerks, payroll clerks, file clerks, cashiers, and a host of other routine activities.

The majority of clerical jobs have no promotional opportunities; once the activity is learned and the person proficient, promotion requires acquisition of new and difficult skills. Since there is more to being a secretary than typing and stenography, it is worth remembering that most secretaries in the past learned the associated skills on the job, with many moving to new employers after acquiring experience. Notwithstanding, there have always been secretarial schools; the community colleges in some cases have taken over this preparation on a pre-employment basis. Along with formal training comes an attempt to upgrade the subject with a new name, *secretarial technologies.*

Crafts. As one might expect, formal training is most common among craft occupations. Even here however, the total reported level was 39 percent in 1970. One of the highest percentages was 60 percent among electricians, and here again licensing requirements

play a role. Plumbers are also licensed, however, and fewer than half of them reported formal training. Apprenticeship, the traditional preparation for craftworkers, is relatively weakly organized in the United States compared to other industrial countries. Of the 264,000 registered apprentices at the end of 1972, 61 percent were in construction trades, 11 percent in metalworking, 5 percent in printing, and the remaining 23 percent in a variety of other trades. Data available for 1960 through 1972 show that in most years "cancellations," including voluntary quits, lay-offs, discharges, and interruptions for military service, were equal to or greater than the number of completions. Many apprentice drop-outs eventually become skilled journeymen through less formal means, and cancellations increase when jobs are plentiful because trainees have the opportunity to earn journeyman wages. On the other hand, apprentices remain in training longer and are more likely to complete their apprenticeship when jobs are not quite so plentiful.

Operatives. Among operatives and laborers, fewer than 20 percent report specific training. Even this percentage would seem to be an overestimate since jobs in these categories, like the assemblers mentioned above, typically require on-the-job experience rather than formalized instruction. Interestingly enough, service workers report a higher level: 29 percent said that they had had formal courses. When one recalls the occupations involved, it is clear where the training is concentrated—in health service work such as dental assisting, practical nursing; among barbers and cosmetologists, and fire fighters and police officers. Here again, the occupations most likely to involve formal training are those connected to one or another form of accreditation.

conclusions

While there is general agreement that most noncollege workers pick up their skills informally on the job, production work in different industries varies first with respect to the range of required skills and, second, with the degree of structuring of skill acquisition. Steel is a case of an internal labor market where blue-collar workers enter unskilled and progress through various grades, first as helpers and finally into the skilled occupations. In the Bell system, the internal labor market involves formal training provided by the company for each position. Public utilities tend to have fewer formal courses for promotion but may subsidize workers to attend courses at local institutions. In automobile manufacturing, companies pro-

vide apprenticeshiplike programs for the skilled workers they require, particularly for maintenance functions.

In the total panoply of training, two-year postsecondary institutions play only a small role. In the academic year 1970-1971, they awarded 153,549 associate degrees and other formal awards below the baccalaureate. This represented a sizeable increase from 1967-1968, when the figure was about 88,000, and the number has doubtless continued to increase. But the distribution of their graduates among occupational programs in 1970-1971 indicates the areas where two-year programs have gained acceptance:

Business and Commerce	33%
Data Processing	6
Health Services and Paramedical	22
Mechanical and Engineering	24
Natural Science	5
Public Service-related	10

The establishment of a successful program in labor market terms seems to depend most on a close tie with an employing organization or industry. Where a police force, for example, agrees to use a local institution for training, an important prerequisite for success exists. Vague statements of needs, on the other hand, may be insufficient grounds for establishing specific training, and there are cases where large investments resulted in neither job prospects nor, finally, in enrollments.

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A cooperative network of program support agencies is required to cope with factors that limit the assimilative capacity of work organizations to absorb learners.

the capacity of work organizations to absorb learners

robert s. bolan

Experiential education methods historically have been an important component in higher education curricula in the United States. Such methods find their roots in the apprenticeships that prepared students for such learned professions as theology, medicine, or law in colonial times. They have been supported by Dewey (1916), Whitehead (1929), and most other prominent educational philosophers and theorists, and they are advocated by Toffler (1974) and other futurists. Apprenticeships, cooperative education programs, field research studies, action learning, and clinical programs exemplify the variety of forms experiential education has taken through the years.

The last decade has seen very rapid expansion of such programs. In community college cooperative education programs, for example, there has been tremendous growth, from 31 programs enrolling 3410 students in 1968 to 163 programs enrolling 25,265 students in 1973 (Brown, 1974). The number of institutions of all types with cooperative education programs was 24 in 1952, 50 in 1962, and 400 in 1973 and it is estimated that one half of all insti-

tutions of higher education will have such programs by 1984 (Smith, 1974).

Educators have consistently called for further expansion of cooperative programs involving school and community educational settings. Such an expansion of programs, however, would require much greater support from community agencies than has been required to date. Smith (1974) warns that the long term will have to see a balancing of supply and demand, a coming to grips with an increasing number of cooperative education colleges and students and the opportunities available for meaningful involvement in business, industry, government and service agencies. He asks several important questions: "Who should oversee the marketplace: government? employers? educational institutions? professional organizations? Will government be forced to fund work experiences in the private sectors as well as in public service agencies?"

why assimilative capacity may become restricted

There are a number of potential hazards in assuming that work organizations have an unlimited capacity to absorb learners. Three representative hazards are considered here. First, personal attitudes within an organization or the community may prohibit an otherwise worthwhile placement. If the owner of an enterprise is overly concerned with its public image, for example, the learner's assignment may be so inconspicuous that it is trivial. Work supervisors who have developed the attitude that learners are generally uncooperative or unqualified may not give a new learner the opportunity to affect anything within the supervisor's span of control. The regular workforce may feel threatened by any new member, especially a learner who may deviate above or below established production norms. Even educators themselves, often unaccustomed to field experience education, may minimize the potential for a placement by suggesting that the organization provide activities for the learner that are, in fact, inappropriate. Regulatory and public service agencies may impose certain restrictions that curtail field study experiences in order to support otherwise desirable public policy. And any one of many special-interest groups may attempt to manipulate the nature of work-learn environments to satisfy its own ends.

Second, even if personal attitudes within the local area are supportive of work-learn programs, there may not be an adequate number of work organizations to support the students in settings

near campus. For example, relatively large residential colleges are often located in very small communities, far from any concentration of work organization.

Third, there are substantial costs involved in providing a work setting for the learner. Some costs are paid by federal student assistance funds, but most are assumed by sponsoring work organizations. These costs pay for learners' salaries and expenses, added supervisory time, increased overhead expenses, and occasional losses in productivity attributable to the learner. Although there are benefits enjoyed by work organizations when sponsoring a student learner, the net cost to organizations will increase in proportion to increases in the number of students they sponsor.

implications for research and policy generation

Thus far, we have discussed a situation in which greatly increased emphasis on field experience education programs is being proposed at a time when the assimilative capacity of work organizations to support the learners in those programs is under question. To encourage these potentially valuable education programs and to facilitate their widespread implementation, several steps must be taken.

Major Research Program. First, a major program of research coordinated by a group representing education, labor, commerce, and public service should be initiated at the federal level. Too little is known about the learning outcomes of work-learn programs, and educators, inarticulate about expected results, are at a grave disadvantage when attempting to place learners in work organizations. There have been some local attempts at assessment of learning outcomes and the recent Cooperative Assessment of Experiential Learning project coordinated by the Educational Testing Service provides some insight into nation-wide results. But much remains to be learned.

Some of the first questions to be addressed by such research include: What is the effect of various types of in-school preparation on the learning outcomes of field experience education? For example, should course work precede field work providing a foundation of knowledge for the student? Or should field work come first, bringing relevant experience into the course work? How can the proper mix be achieved?

Second, research should deal with such questions as: How do the different roles and relationships among teachers, supervisors and

students affect learning outcomes? Should faculty guide students through a field experience, or should organization supervisors assume major responsibility for a student's learning? How much latitude should the students have in making their own decisions, unassisted by either faculty or supervisors?

And third, research must help educators answer the following: What are the learning outcomes associated with specific structures and methods of field experience education? What is the result when students complete a segment of their academic studies and then begin their work experience, when they study and work simultaneously, and when they incorporate their field work into their studies as one of many courses?

The proposed research must also study the assimilative capacity of work organizations to absorb learners under several conditions. In order to determine the appropriateness of a site, academic institutions need to know the restrictions that a given work organization will place on the program and the students. Thus, organizations should be surveyed to discover whether or not they intend to pay students, whether or not work supervisors might affiliate with the school, and which costs will be borne by the organization, the school or both, and whether or not placements remote from the school's supervision are acceptable.

The research should also identify the availability of diverse categories of positions within the work organizations to accommodate learners in various stages, including fifteen- to twenty-five-year-old high school and college students, unemployed persons of all ages, underemployed persons of all ages, and semiretired persons. The research should yield results that local educators and other officials can find sufficient to set local policies regarding work-learn programs.

Support Local Experimentation. Second, assuming that the emphasis on work-learn programs will continue to increase, federal, state, and local support is needed to insure their success. Because of the experimental nature of these programs, a greater financial risk is incurred than in traditional curricula. An immediate and high national priority should be placed on providing financial support for many different types of work-learn programs at the local level. Such support could be provided through student vouchers or through per capita allocations, and this support should encourage the widest possible spectrum of choice among program structures and methods. Such support would provide the program base from which assimilative capacities can be tested, and learning outcomes evaluated.

With such financial support, new programs could continue to develop, nurtured by local initiative, local program control, and local and nonlocal funds. There is no doubt that educators in a community know more about their specific needs than large governmental agencies, and the pattern of local control should be maintained. However, local decision making currently is hampered by a general lack of knowledge about results of experiential education programs elsewhere in the country. It is as if the wheel were being invented simultaneously by 400 different draftsmen! Therefore, a federally supported coordinating agency should be established to disseminate research and program information on a national basis.

Establish a Cooperative Network of Program Support Agencies. Third, a network of cooperative support agencies should be established to provide surrogate administrative offices for schools and colleges with geographically remote work-learn programs. Ideally, these agencies would be located in cities where major work opportunities abound, and the agencies would serve any cooperating experiential program that wished to place a student in that city. Faculty members from cooperating schools would join the administrative staffs of these agencies to provide academic leadership and support.

Such programs are needed to balance supply and demand for local assimilative capacity, to provide cross-cultural experiences for each campus, and to meet unusual educational needs of specific students. The Mt. Vernon College Center for Washington Learning Opportunities is an example of such an agency, and many schools have similar administrative arms in a variety of locations. But, to date this use of remote centers is largely uncoordinated, is highly uneconomical in its use of administrative funds, and lacks the faculty involvement available in the home campuses. A network of cooperative support agencies, on the other hand, could produce temporary campuses in which learners would enroll during the work-learn portions of their education that should take place far from their home campus. Learning proposals would be arranged at the home campus and implemented under the direction and tutelage of resident faculty members at the cooperative agency. This network should be established as a national priority, and then funded and staffed from local resources.

With full support and vigorous administration, these steps should increase the educational system's contribution to societal health and productivity. They should reduce the costs of confused choices, frequent alienation, and inappropriate preparation currently facing those undergoing a personal transition from school to work.

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The flow of population and financial resources has great impact on student enrollments in higher education.

demographic and economic influences on the growth and decline of higher education

stephen j. carroll
peter a. morrison

Owing to a confluence of demographic and economic forces, higher education entered upon a remarkable era of growth in the nineteenth century that reached its peak in the mid-1960s. That era ended abruptly early in the 1970s as a new configuration of demographic and economic forces emerged from the old. The rate of growth in enrollments suddenly slackened, and the euphoria of the 1960s—when enrollments grew faster than in any previous decade since the Civil War—gave way to widespread concern for the survival of higher education.

Further growth of the higher education system is likely to be slow at best. Indeed, pressures for contraction may intensify. Community colleges, however, occupy a distinctive position in the higher education system; the outlook for them is probably less bleak than it is for overall college enrollments. Nevertheless, they must formulate their future staffing and capital investment plans with a weather eye on the trends that affect higher education as a whole, and on the exceptional aspects of those trends as they affect the two-year college sector.

In this chapter, we present a description of the national demographic and economic context of higher education, and offer interpretations of what it portends. We are not foolish enough to attempt to forecast the exact future course of the trends we describe; rather, we attempt to help educational planners adapt readily to what the future may bring.

past trends in enrollments

In the century preceding 1970, enrollments in higher education grew steadily at an annual average rate of about 5 percent, regularly doubling every fourteen or fifteen years. The 1970s ushered in a fundamentally new era. Between 1969 and 1974, degree-credit enrollments rose by only 19 percent, in contrast to the 60 percent growth experienced between 1964 and 1969. As the enrollment curve flattened, so did the growth of financial support, which had more than tripled during the 1960s. The number of institutions of higher education had doubled between 1940 and 1970, totaling more than 2700 in the latter year; of that increase, the growth of community colleges accounted for nearly two thirds. By 1970, the 217 two-year institutions of 1940 had increased to about 1000 junior and community colleges, enrolling some two million students. Few new colleges and universities have opened since 1970; however, a number have closed their doors and many more appear to be on the brink of doing so.

An expanding population buoyed up and carried along the growth of the higher education system. But rapid increases in enrollment *rates,* largely stimulated by economic forces, lent even more impetus. Although the population of the United States approximately quintupled between 1870 and 1970, population growth alone accounts for less than one third of the growth in enrollments for seven of the past ten decades.

demographic context of higher education

Three aspects of recent demographic change bear on current enrollment patterns in higher education and the outlook for the future: (1) the widely varying size of cohorts born since the late 1940s; (2) the pattern of child spacing during the same period; and (3) age-selective migration (Morrison, 1976).

Changing Size of Birth Cohorts. The central feature of the demographic context is the roller-coaster curve of the birth rate

over the past three decades. The baby boom saw births increase from 2.9 million in 1945 to annual levels of 3.6 to 4.3 million between 1947 and 1966. Thereafter, fertility measures began to decline sharply, signaling the onset of a baby bust, and by the early 1970s births numbered only 3.1 to 3.2 million annually.

The term *peristalsis*—the spasmodic process by which a python swallows a pig—is an apt metaphor for how the United States is absorbing the baby boom and bust. The most apparent feature of the population's age distribution is the baby boom bulge (persons aged ten to twenty-eight in 1975) moving through successive age boundaries. The leading edge of this bulge—persons now in their late 20s—crowded the nation's elementary schools in the early 1950s and moved on to crowd the secondary schools in the early 1960s. Colleges and universities were then overrun by eighteen-year-olds in the mid-1960s.

Recently plummeting birth rates have left a relative dearth of children under about ten years of age. For every hundred children under five years old in 1965, there were only seventy-eight in 1975. This shrinkage began to affect elementary schools in the late 1960s and the secondary schools in the mid-1970s. Beginning in the early 1980s, the numbers of persons in the traditional college-going age range (eighteen to twenty-one) will diminish and continue to shrink through the mid-1990s. The population aged twenty-two to thirty-four will continue to increase sharply through about 1980, but its growth will have ceased by the 1990s.

Although the baby boom and bust are common knowledge, another fertility-related influence is little recognized and its implications have scarcely been examined. This influence results from the schedule of post-1950 childbearing, which was marked by a high fertility level and closely spaced births. With these cohorts now maturing to college age, that schedule is manifesting itself in a "sibling squeeze"—a rising incidence of families that have several children within the college ages at the same time. For families of a given size, closely spaced births in the late 1950s now mean that the economic burden of a college education for several children is compressed into a comparatively short span of time. This harbinger of things to come will force at least some families to reconsider the abstract advantages of a four-year college education for the youngest child at a time of concrete economic need. The result may be a shift from a high-tuition private to a low-tuition public institution, from a four-year to a two-year institution, or simply less encouragement to attend college at all. This disturbing fable is almost entirely

speculative, of course, since we lack data on how families actually react to the pressures of a sibling squeeze.

Age-selective Population Movements. With the decline in the birth rate, differential growth patterns between one locale and another depend heavily on migration, which is a highly selective process. Migrants consist largely of young adults aged eighteen to thirty-five; an influx of new residents thus adds disproportionate numbers of prospective full- or part-time college attendees. An example of how migratory growth alters local age structure can be seen by contrasting San Jose, California, and Buffalo, New York—two metropolitan areas nearly identical in size in 1970. While San Jose's population more than tripled between 1950 and 1970, mostly because of migration, Buffalo experienced substantial net outmigration. Their age distributions reflect their different growth patterns: 37 percent of San Jose's 1970 population was in the twenty to forty-four age bracket, compared with only 30 percent of Buffalo's.

Although the effect of age-selective migration is rarely very pronounced, disproportionate demand for higher education can be anticipated in certain rapid-growth regions—states like Florida, Nevada, and Arizona, or metropolitan centers like Orlando, San Jose, and Phoenix. The greater proportion of younger adults could mean levels of demand for higher education significantly higher than would be predicted by the absolute size of the local population. Conversely, unexpectedly low levels of demand are likely to be experienced in slow-growing and declining regions and metropolitan centers. The effects of these patterns are likely to be especially sharp for the locally oriented community college sector.

economic context of higher education

During the 1950s and 1960s, economic factors and public policies conspired to maintain a high rate of return to college attendance and to stimulate ever-increasing enrollment rates. By the early 1970s, however, labor markets had become inundated by college-educated workers, giving rise to a quite different configuration of economic forces. We will briefly review the economic context of higher education prior to 1970. Then we will discuss some of the contemporary consequences of that experience and its economic aftermath.

Pre-1970 Context. The post-World War II era of rapid economic growth was accompanied by even more rapid increases in the

demand for college-educated workers. In the private sector, growth was concentrated in the professions and in such industries as finance, insurance, chemicals, petroleum, electronics, and aircraft, whose workforce had traditionally accounted for a disproportionately large share of the jobs filled by college graduates. The expansion of demand for college-educated workers was equally vigorous in the public sector. The federal bureaucracy (which now employs one in six male college graduates) and state and local government (also large employers of college-educated manpower) grew rapidly in the postwar era. Of special importance was the growth of elementary and secondary education, itself propelled by the baby boom. The percentage of all jobs that were professional or managerial (an index of the demand for college-level manpower) rose from eighteen in 1950 to twenty-four by 1969 (Freeman, 1975a, p. 13).

To a considerable extent, the higher education system fed on itself. Its rapid expansion demanded more college faculty, thereby stimulating expansion of postgraduate education. During the 1960s, many college graduates were channeled into postgraduate schools rather than directly into the labor force; that trend was so marked that the proportion of college graduates among all new labor-force entrants actually declined. In effect, large numbers of college graduates were in a postgraduate holding pattern.

Also, there was a growing tendency for employers to seek college-trained people for jobs that really did not require higher education. A college education provided an employer with evidence of the employee's stability, reliability, and talent. It also lent a certain prestige to the employer.

While these factors combined to maintain a high level of benefits accruing to college graduates, economic factors and public policy decisions combined to ease the economic burdens of going to college. A growing gross national product was translated into rising family incomes: more and more families could afford the costs of room and board, tuition, fees, and books (direct costs) and the foregone income of the college-goer (opportunity costs) associated with college attendance.

Federal and state governments have profoundly affected the possibilities (and aspirations) for higher education by providing student financial aid and subsidized public higher education. Apart from the G.I. Bill, federal efforts began in 1958 with the National Defense Education Act (which authorized low-interest loans to students) and have consistently expanded since then. College Work-Study was added in 1964, and Educational Opportunity Grants and

Guaranteed Student Loans in 1965. In 1972, Basic Educational Opportunity Grants and State Scholarship Incentive Grants became available. Growth of state support for higher education has been even more impressive.

A particularly important facet of state higher educational support is the emergence, during the 1960s, of extensive two-year college systems in most of the populous states. Tuition in these institutions is generally low or nonexistent, and admission is generally quite open. Low-cost, nearby, relatively open higher educational institutions have been made available to an ever-increasing proportion of the nation's high school graduates.

Contemporary Consequences. This constellation of forces in operation prior to the 1970s gave rise to a highly unstable pattern of events that simply could not be continued. The persistent high level of demand for college graduates had combined with easier access to higher education to spur enrollment rates throughout the 1950s and 1960s. The pressure of the draft and the civil rights movement, which stimulated enrollments among the black population, had reinforced the upward trend in enrollment rates. Finally, the eighteen- to twenty-year-old population was expanding rapidly. The joint product of these forces was an explosive increase in the annual numbers of college graduates. About 388,000 people won bachelor's degrees in 1962, about 558,000 in 1967, and over 876,000 in 1972—a 125 percent increase over the comparable figure only a decade earlier.

By the early 1970s, successively larger ranks of new college graduates brought their diplomas to the labor force each year. Moreover, the higher educational attainment of younger cohorts meant that a substantially larger percentage of new labor force entrants than of the total labor force was college educated. Unfortunately, the sharp increases in the percentage of college graduates among new labor force entrants *was not matched by the numerical growth of high-level positions in the labor market.* The long-term upward trend in the ratio of the kinds of jobs college graduates traditionally entered to total jobs leveled off.

Labor markets soon were swamped with college-educated job seekers. Salaries of new college graduates declined relative to those of other workers, and substantial proportions of college-educated workers began to enter what had been regarded as lower-status occupations. Between 1961 and 1969, the real earnings (adjusted for changes in the consumer price index) of new college graduates increased 2 to 4 percent annually. In contrast, the real earnings of

year-round full-time workers in general grew about 2 percent annually. Between 1969 and 1974, however, the earnings of new college graduates failed to keep pace with inflation, declining in real terms by 2 to 5 percent annually, while the real earnings of workers in general were essentially unchanged. During the first half of the 1970s the real earnings of new college graduates fell by 11 to 25 percent, depending on field and degree (Freeman, 1975a, p. 7).

This decline in the relative earnings and labor market opportunities of college graduates is reflected today in a sharply reduced economic rate of return for college attendance—that is, the gap between expected lifetime earnings of college and high school graduates. Between 1959 and 1969, the rate of return for college hovered at about 11 percent. By 1974, it had fallen to 8.5 percent, a 23 percent decline in only five years (Freeman, 1975b).

The declining economic value of a college degree has had a decided effect on the rate at which males have enrolled in college. Between 1969 and 1974, the enrollment rates of eighteen- to nineteen-year-old males fell from 44 to 33 percent; for twenty- to twenty-one-year-old males, it fell from 45 to 34 percent (U.S. Bureau of the Census, 1970 and 1975). Comparable changes for women were minimal. There was little change in the enrollment rates of older men and women over the same period.

future outlook

In this chapter we have described and interpreted certain trends in order to illuminate future contingencies. In looking to the future, we underscore three principal points.

First, owing to major swings in fertility following World War II, demographic pressure that made for increased enrollments in the past will dissipate at the traditional college-going age range, but continue at the somewhat older ages, when people are commonly drawn back to higher education, especially to community colleges. For the population eighteen to twenty-one years of age, the immediate outlook is for a sharply reduced rate of growth compared with recent years and, eventually, decline. For the population twenty-two to thirty-four years of age, on the other hand, the outlook is for rapid expansion through the early 1980s, tapering off thereafter and followed by an era of decline commencing later in that decade. Second, since the present oversupply of college-educated persons is likely to persist for more than a few years, it is likely that the gap between the expected lifetime earnings of college and high school

graduates will continue to narrow. Finally, in light of the high and rapidly rising costs associated with college attendance, it is reasonable to anticipate continued low rates of college enrollment compared with the late 1960s and, possibly, further decline in these rates.

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A wide range of incentives is needed to facilitate the transition from school to work

the problem of incentives

lewis c. solmon

This paper assumes that the community colleges can serve as a facilitating institution through which eighteen- to twenty-two-year-olds will pass en route to the labor market after high school. The high school graduates who use this mechanism are inadequately prepared for direct entry into jobs for several reasons: lack of skills valued in the labor force; insufficient knowledge about skills in demand and inadequate high school training for jobs that are in demand; poor preparation for the world of work; and ignorance of desirable behavior that is expected by employers. This paper further assumes that community colleges have now, or could develop, programs to provide training in both vocational and social skills useful in the world of work. The problem is to encourage a potential clientele to avail themselves of community college programs and to encourage support, both internal and external, for the full development of such programs.

identifying constituencies

In order to achieve full development of the potential of the community colleges it is important to understand the benefits that will accrue once these ends are obtained. Benefits to all relevant constituencies must be explicated and before this can be done, all these constituencies must be identified. These groups include:

students and their families, members of the college community including faculty, administrators and counselors, business people including employers and employees, and others who decide on funding of programs, including government bureaucrats and legislators and the larger general public. It must be recognized that for many of these groups benefits conflict: to benefit one group may mean imposing costs on others.

Here, it is assumed that the role of the community college will be not only to augment the skills of participating students but to work with employers in developing informational and experiential cooperative programs that will facilitate ultimate movement of students into full-time work settings.

the students

The student will have to weigh potential benefits of the community college experience against his or her costs. These costs consist primarily of the foregone earnings resulting from delay of entry into the permanent labor force, and of loss of up to two years of seniority. Of course, earnings from work while in school or from financial aid reduce the opportunity cost. If programs can be accelerated, seniority reductions can be minimized. Benefits to students include increased later income and job satisfaction resulting from (1) ultimate entry into the labor force with greater marketable skills, (2) a better understanding of the work ethic, and (3) holding of a job better matched to individual tastes. Participation in these programs is intended to provide the student with more information of job availability and job requirements as well as with new skills.

employers

Employers will incur costs from these programs as well. Most directly, there probably will be some expectations that firms will pay students during times when they are working. Even if this has not been the case to date, payment of students will not only add realism to the work experience, but will also encourage greater responsibility during work. However, in all likelihood, student workers will not be productive enough to justify whatever salary they receive—hence the employer cost.

Moreover, student workers probably will add other costs to the firm—some disruption, and time of supervisors and community college liaison officers. Those already employed may feel threatened by the newcomers and this may affect their work.

In order to induce employers to incur these costs, potential benefits must be explicated. Although student workers could potentially provide the firm with some services at below market prices, the net effect is probably the opposite. However, firms could benefit if they use the cooperative program for talent scouting, to identify students whom they would like to retain after graduation. A look at a potential employee in the work setting must have advantages over the usual interviews, letters of reference, and screening by educational attainment.

Also, firms would be able to determine what types of jobs would be best suited to particular employees and what types of employees would be best for particular jobs. Firms would also be able to evaluate the nature and aspirations of youths about to enter the labor force and so redesign certain jobs and tasks to better suit those who will hold them. By informing student workers about job prospects and job requirements, firms can expect future applicants to be better prepared and more realistic and hence, more satisfied and more productive. Less time will have to be spent in training and socializing workers once they begin to work permanently.

A final potential benefit to employers is often ignored. Many members of the minority communities hold rigid preferences for certain products and prejudices against others that are produced by firms reputed to have been discriminatory in hiring in earlier times. Certain low-income groups also are simply unaware of certain products and certain firms. Cooperative education programs can increase sales of firms disliked or unknown by minorities by disproving old ideas about discrimination and by increasing awareness of certain products.

educational institutions

Students probably will be the group most easily induced to support programs proposed in this volume. This is particularly true of students who have had problems moving directly from high school to work. If a youth is unemployed, the opportunity cost of attending a community college is merely the value of his leisure time rather than the value of lost earnings. Employers will probably be the most difficult to convince, since costs to them are immediate and benefits obtainable only indirectly and over a longer term. Hence, in all likelihood, acceptance by educational institutions, the community colleges in particular, will be pivotal in gaining national acceptance of postsecondary cooperative education programs.

The situation for the community colleges, however, is com-

plicated. Although this segment of postsecondary education has been (and probably will continue to be) least affected by enrollment declines, community colleges still must be concerned with course enrollments to provide jobs for faculty. Of course, the large proportion of faculty that is part-time gives community colleges more flexibility in this regard than is available for four-year institutions.

It is presumed that cooperative programs would include some credit for work experience and this does pose some threat to size of student course enrollments. However, if it can be shown that cooperative programs result in fewer students dropping out before completion of programs, the net result is probably a wash. In addition, if cooperative programs can be shown to be more effective in providing jobs, community colleges will be able to lure more high school graduates into postsecondary training and attract some students away from the four-year schools.

More serious is the implied increase in control over community college curricula by business firms and other groups external to the colleges. If firms agree to participate in cooperative programs they are going to want to have more say in program development, determination of criteria of success, and so on. To the extent that faculty and administrators perceive they are losing control, they probably will resist innovation.

In addition, since cooperative programs are able to state explicit program goals, they are more susceptible to *real* evaluation. To date, evaluation of postsecondary programs (generally, not just in the community colleges) has been weak if not nonexistent. Fear of more direct and stringent evaluation may be another reason for resistance by the community colleges. However, if it can be established that cooperative programs work (as has been shown for several programs) the community colleges may be willing to participate despite risks inherent in greater scrutiny. Perhaps evidence of prior successes is a prerequisite for acceptance by the colleges.

Clearly the counseling function takes on new importance in community college programs designed to assure jobs, particularly better jobs, for graduates. This fact both imposes risks on and opportunities for the community colleges. The opportunities arise if cooperative programs can be used as arguments for greater funding of counseling services in the community colleges. The risks arise if new responsibilities are imposed on a profession generally inadequate to its tasks because of poor training and poor funding.

the public

Finally, the ultimate arbitrator in the decision to implement cooperative postsecondary programs is the general public, as represented by various local, state, and federal governments, which will provide the bulk of the financing. In addition to obvious tax dollars, what costs must the nonparticipating public pay? What benefits will they get? Clearly, some voters will obtain benefits described above, since they are students, business employers, or educators. However, additional benefits may derive from reduced unemployment and thus not only from a decline in unemployment insurance payments, but also from a decline in social unrest.

Better-trained workers, matched to appropriate jobs, are more satisfied and more productive. Job turnover would be reduced, and the national product would be increased. If a segment of the potential labor force delays entry into the world of work from seventeen or eighteen years of age to twenty-one or twenty-two, the oversupply of relatively unskilled workers will decline (if population of younger ages is larger). This decline should firm up salaries of those already in the labor force.

conclusion

The purpose of this essay was to discuss possible incentives to encourage the development of a new system to facilitate the transition of youth from school to work. Most generalizations of incentive approaches are obvious, if not trite. Anything that increases the potential benefits or reduces costs of the new system will encourage its adoption and success. Thus, the system should attempt to learn from earlier experiences, attract the best talent, be accessible to those most able to benefit, and do whatever else is necessary and possible to maximize benefits.

However, benefits must not only exist (or promise to exist); they must also be communicated, advertised, put forth to all constituencies. Careful thought must be given to ramifications for all those who will be affected, not only for the students who participate.

On the other side, costs of the new programs must be minimized, keeping in mind the need to spend enough to achieve reasonable goals. One obvious variable is efficiency: automated teaching where possible, nonduplication of services, and locating community colleges near sources of students to reduce travel time.

At times, cost reduction has been interpreted as meaning subsidization. Clearly, costs to students can be minimized by high scholarships. Costs to employers can be eliminated by paying participating firms, rather than having them pay student employees. Costs to institutions can be kept low if all new tasks are covered by huge infusions of federal, state, or local aid.

All these methods of reducing costs to particular constituencies through subsidization imply costs to others in society. In an economic sense, these costs are only acceptable if net gains to those in society not directly participating in the programs (all those except students, employers and educators) are large, at least equal to the cost of subsidization. Social benefits are very difficult to prove. Hence, the greatest incentive for a successful system is not subsidization. It is, rather, the development of an effective and efficient set of programs in a cost/benefit sense.

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He is currently completing a book on how college graduates use their education in their jobs.

A summary of the problems and proposed solutions examined in this issue of New Directions.

recommendations for practice and research

mark b. ginsburg
harry f. silberman

The authors in this issue of *New Directions for Community Colleges* have focused on a number of difficulties related to the transition from school to work among young people.

the problem of isolation

One problem identified by several authors is the isolation of youth during their school attendance years from the "real world," especially from places of work. This isolation, according to Edward Wynne, results in alienation among youth, which in turn has several antisocial manifestations. One might question whether the increased drug use, violent behavior, and individualism is a phenomenon associated with the younger generations or whether it merely is a reflection of recent trends in the overall society. Nevertheless, an expansion of the types of productive activities and settings normally associated with the schooling process seems warranted, if only to facilitate the development of generalizable social coping skills.

For this purpose, it appears that students need some form of work experience to supplement the more traditional academic endeavors in the schools. Both Evan Keislar and Mark Ginsburg

note, however, that this work experience should be carefully planned and organized so that young people will not be thrust from the alienating school environments to perhaps more alienating work environments. Important aspects of this planning include: (1) opportunity to explore rather than merely perform a task in workplaces, (2) opportunity to observe a variety of role models from different positions in a variety of organizations, (3) opportunity to analyze and reflect on one's work experience, and (4) opportunity to receive systematic and constructive feedback during and after one's work experience. The Synanon "game" that Brooks Carder describes might be an interesting model for schools and workplaces to provide for the opportunities for analysis/reflection and constructive feedback.

A variety of arrangements are proposed for meeting the needs of young people. Mark Ginsburg concludes that the cooperative education model is potentially useful if more attention is directed to selecting or organizing educational experiences in workplaces as opposed to merely placing students in the workplaces. James Taylor strongly recommends alterations in the nature of workplaces, in particular implementing what he calls a "social-technical-design" where the normal hierarchical arrangements are minimized and the complexity of tasks performed by workers is increased. He sees such redesign efforts as critical to any efforts to achieve educational goals in workplaces. Jane Permaul suggests that by itself the process of creating experiential learning contracts, an integral component of most cooperative education programs, would provide the kinds of experiences to help young people break out of their alienating traditional student role. Robert Meeker sees the answer in restructuring the community college into a productive community. In his plan students would be both workers and learners in the same setting. Drawing on the Synanon community experience, Brooks Carder makes a similar point. That is, one way to ease the isolation of youth and the difficulties experienced by youth in making the transition between learner and worker statuses is to lessen or eliminate the distinctions between, and the age-gradedness of, working and learning. In Synanon, and also in the People's Republic of China, according to John Hawkins' description, learning and earning are integrated throughout the life cycle.

mismatch between training and jobs

Another problem identified by other authors in this monograph is the lack of manpower planning or linkages between schools

on the one hand and business, industry, and government on the other. Here the issue is not so much that youth are isolated from the real world of work during their schooling years, but that routinely there is little connection between the jobs students train for and those that in fact exist. Charles Healy made several recommendations for this problem. First, that counselors get to students at an earlier stage in their schooling career than is presently the case. Second, because of the limited number of placement officers, he recommends that counselors get to students indirectly by training faculty members to perform some of the counseling functions. This training would require counselors to know more about the job market.

Of course, it is not possible to ensure that students make realistic career plans and obtain the requisite preparation. In some cases very little preparation is required. Marcia Freedman documents the limited extent of formal training that is required for most jobs, and notes that successful training programs must be closely tied to the eventual employing business or industry. Several other authors in this monograph also comment on the necessity of bringing other constituencies together with educators to build bridges between schooling and working. Paul Barton sees part of the answer in community councils, consisting of educators, employers, union representatives, students, parents, and other members of local communities. Such collaboration among school and work sectors of the society is also evidenced in Latin American and British systems, according to Thomas LaBelle and David O'Shea. In addition, the critical role of some centralized, governmental coordination is identified. O'Shea diagnoses the main cause of the mismatch between training obtained by most eighteen- to twenty-two-year-olds and the type of jobs available as the lack of status accorded to vocational (as opposed to liberal arts/academic) education. He recommends that this status inequality be resolved by a dual educational system patterned after the British system.

implementation problems

Still other authors in this monograph address themselves to issues of implementation in attempting to solve both the problem of youth isolation and the mismatch of training and jobs. Janet Lieberman focuses on the constraints in the structure of the community colleges, the many conflicting functions that the community colleges serve, and the great range of interests and abilities of the community college student population. In looking at coopera-

tive education as a fruitful model, she identifies another major stumbling block: the academic orientation of faculty, which is reinforced by the incentive structure that obtains. She recommends careful selection and training of new faculty. As Mark Ginsburg's analysis suggests, such efforts might also be needed for job-site supervisors.

Robert Bolan indicates that the workplace is not the infinite source of jobs and educational experiences that is often implied in the proposed solutions to the school-to-work transition problem. He suggests systematic research into the capacities of various work settings, not only for providing slots for young people, but also for fostering certain kinds of educational outcomes. He recommends support for local experimentation with innovative work-learn arrangements. Stephen Carroll and Peter Morrison's demographic forecast suggests a favorable environment for such experimentation in the community colleges, which are likely to obtain a greater share of the future clientele in higher education.

Finally, in an attempt to provide some direction to the solution of these implementation problems, Lewis Solmon recommends that the various direct and indirect constituencies involved in any reform effort be identified, and that the benefits accruing to each party be advertised while attempts to minimize costs to each constituency are launched.

concluding remarks

There are no facile solutions for the multiple problems associated with the school-to-work transition among eighteen- to twenty-two-year-olds. The issues are complicated by differing goals, a heterogeneous youth population, and the differences among workplaces. It will be extremely helpful, although difficult, to clarify the goals, type of youth, and type of workplace.

A statement about needed research is the customary closing for a monograph of this kind. Applying that tradition to the problem of school-to-work transition could easily consume more pages than allowed by our publisher, but there are a few important categories of research that should accompany the recommendations for educational practice that appeared in this issue.

First, we need better data on youth socialization patterns. It is very difficult to monitor the status of the school-to-work transition problem. Presently, one must go to numerous unrelated sources to find out how youth spend their time at home, at school,

at work, or at play. Statistics on youth problems and youth contributions to society are quite fragmented. There are many gaps in our view of school-to-work transition in America. We also need detailed data on best current practices. Projects designed to ease the school-to-work transition need to be carefully reviewed and the genuinely promising projects separated from uncritical positive self-reports of newly labeled conventional practices. For the promising projects, applicable target groups, treatment procedures, costs, results, and materials should be documented and disseminated. Even more important than descriptions of the alternative educational treatments are descriptions of the special organizational arrangements and administrative incentives that make it possible for those project treatments to become a regular part of the mainstream operation of the educational institution. Too often today's promising projects are based on temporary grant money or are isolated from the main body of the organization. Especially promising projects might serve as training sites for personnel from other institutions who wish to initiate similar activities.

Where current practice does not reveal effective alternatives for coping with school-to-work transition problems, new hypotheses must be generated and experimentally tested. For example, the amount and quality of supervision may contribute greatly to the effectiveness of field work-experience programs—but only in organizations where students are provided challenging tasks on which strongly valued consequences are at stake. Sifting out the conditions of educationally effective work experience for students with different backgrounds may take extensive research energy, dispensations from labor, employer, and education authorities, and special waivers of certain laws and traditions. As we learn more about the conditions necessary to achieving adulthood and making a smooth transition from school to work, we can hope to make more intelligent policy decisions in this chronic problem area.

Additional references on easing the transition from school to work from the ERIC Clearinghouse for Junior Colleges.

sources and information

elizabeth rinnander

This concluding article provides additional references pertinent to the operation of cooperative education programs. All sources are in the ERIC system, unless otherwise noted.

The list of references includes ERIC documents dealing with the impact of work-experience programs, including follow-up studies of student alumni; needs assessment for work-related curricula; and experiential education. Lack of space prohibits lengthy description of these documents here.

Two basic references (Bender and others, 1975; Heermann, 1973) provide the reader with background information concerning the development and operation of cooperative education programs.

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These ERIC documents, unless otherwise indicated, are available on microfiche (MF) or in paper copy (HC) from the ERIC Document Reproduction Service (EDRS), Computer Microfilm International Corporation, P.O. Box 190, Arlington, VA 22210. The MF price for documents under 480 pages is $0.83. Prices for HC are: 1-25 pages, $1.67; 26-50, $2.06; 51-75, $3.50; 76-100, $4.67. For materials having more than 100 pages, add $1.34 for

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Abstracts of these and other documents in the Junior College Collection are available upon request from the ERIC Clearinghouse for Junior Colleges, Room 96, Powell Library, University of California, Los Angeles, CA 90024.

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JAN 7 1977

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STATEMENT OF OWNERSHIP, MANAGEMENT AND CIRCULATION
(Required by 39 U.S.C. 3685)

1. Title of Publication: *New Directions for Community Colleges.*
2. Date of Filing: September 24, 1976.
3. Frequency of Issue: Quarterly.
   A. Number of Issues Published Annually: Four.
   B. Annual Subscription Price: $25 institutions, $15 individuals
4. Location of Known Office of Publications: 615 Montgomery Street, San Francisco (San Francisco County), California 94111.
5. Location of the Headquarters or General Business Offices of the Publishers: 615 Montgomery Street, San Francisco (San Francisco County), California 94111.
6. Names and Addresses of Publisher, Editor, and Managing Editor: Publisher—Jossey-Bass Inc., Publishers, 615 Montgomery Street, San Francisco, California 94111; Editor—Arthur M. Cohen, ERIC Clearinghouse for Junior Colleges, University of California, Los Angeles, California 90024; Managing Editor—JB Lon Hefferlin, 615 Montgomery Street, San Francisco, California 94111.
7. Owner: Jossey-Bass Inc., Publishers, 615 Montgomery Street, San Francisco, California 94111.
8. Known Bondholders, Mortgagees, and Other Security Holders Owning or Holding 1 Percent or More of Total Amount of Bonds, Mortgages, or Other Securities: Same as #7.
10. Extent and Nature of Circulation:

	Average No. Copies Each Issue During Preceding 12 Months	Actual No. of Copies of Single Issue Published Nearest to Filing Date
A. Total No. Copies Printed (Net Press Run)	2505	2537
B. Paid Circulation		
1. Sales through Dealers and Carriers, Street Vendors, and Counter Sales	75	38
2. Mail Subscriptions	1072	1081
C. Total Paid Circulation	1147	1119
D. Free Distribution by Mail, Carrier, or Other Means: Samples, Complimentary, and Other Free Copies	265	265
E. Total Distribution (Sum of C & D)	1412	1384
F. Copies Not Distributed		
1. Office Use, Left Over, Unaccounted, Spoiled After Printing	1093	1130
2. Returns from News Agents	0	0
G. Total (Sum of E, F1 and 2—should equal net press run shown in A)	2505	2514

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